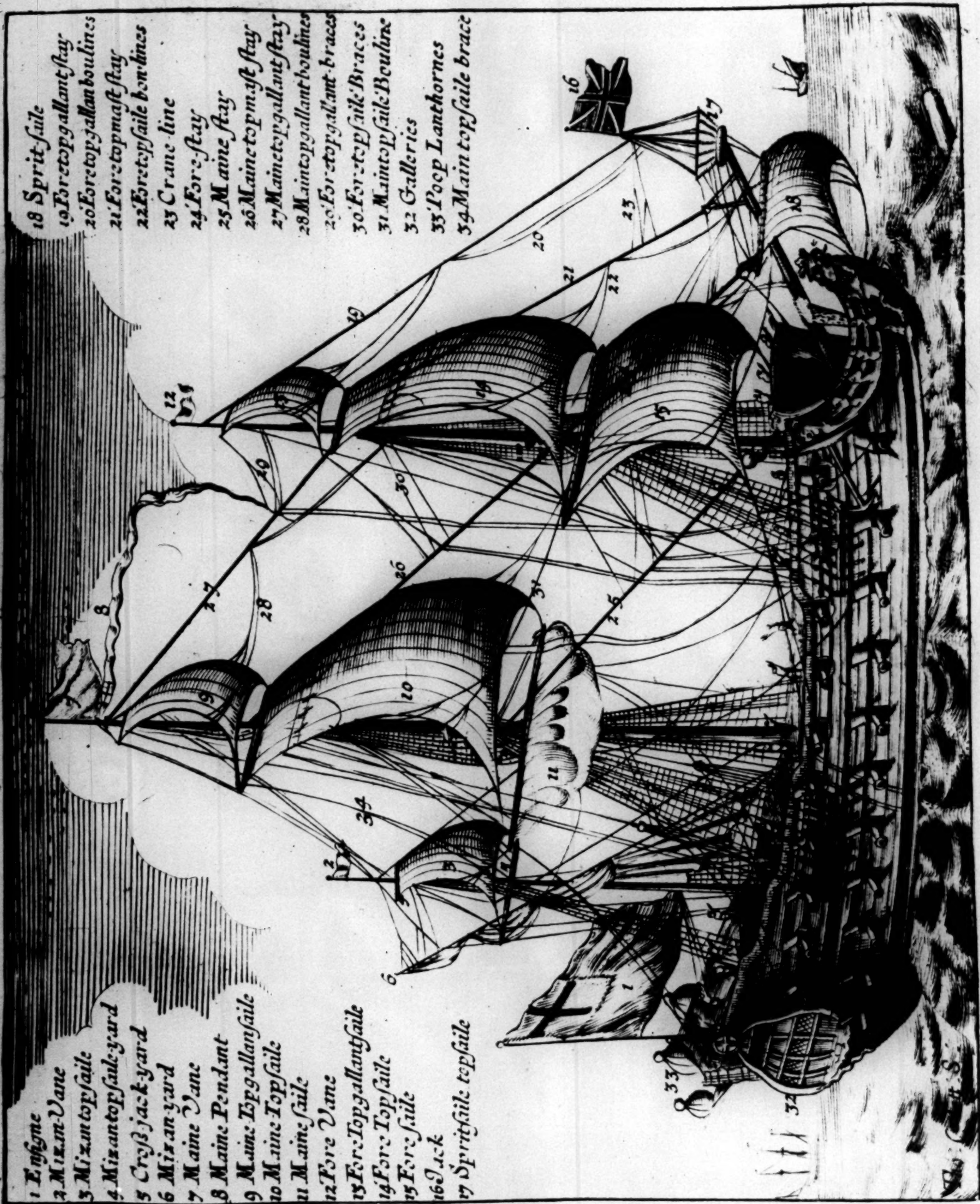


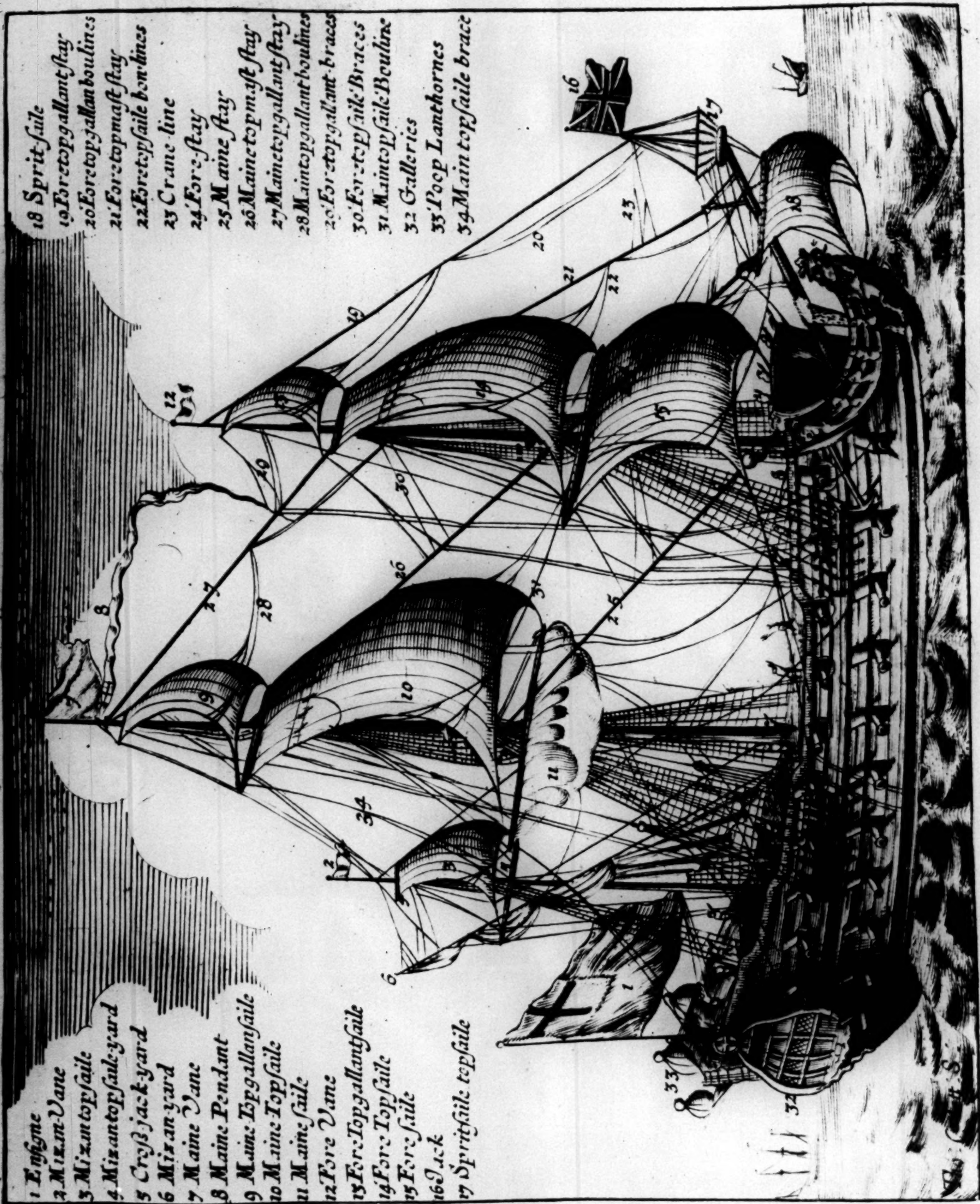
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 22 Fore-top saile bouldines
 23 Crane-line
 24 Fore-stay
 25 Main stay
 26 Main-top mast stay
 27 Main-top gallant stay
 28 Main-top gallant bouldines
 29 Fore-top gallant-braces
 30 Fore-top saile Braces
 31 Main-top saile Beulline
 32 Galleries
 33 Poop Lanthornes
 34 Main-top saile brace

1 Ensigne
 2 Mizzen Vane
 3 Mizzen-top saile
 4 Mizzen-top saile-yard
 5 Cross-jack-yard
 6 Mizzen-yard
 7 Main Vane
 8 Main Pendant
 9 Main-top gallant saile
 10 Main-top saile
 11 Main saile
 12 Fore Vane
 13 Fore-top gallant saile
 14 Fore-top saile
 15 Fore saile
 16 Jack
 17 Sprit saile-top saile



18 Sprit-saile
 19 Fore-top gallant stay
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 11 Main saile
 12 Fore Vane
 13 Fore-top gallant saile
 14 Fore-top saile
 15 Fore saile
 16 Jack
 17 Sprit saile-top saile



Colloquia Maritima :

O R

Sea-Dialogues.

T R E A T I N G

- I. Of the Office of Commanders in Chief.
- II. The Duty of Inferiour Officers and Mariners on Board his Majesties Ships of War.
- III. The Victualling of Ships.
- IV. A *Dictionary*, or Explanation of the Names of all the Parts of a Ship ; Sea-Phrases, or Words of Art used at Sea.
- V. Of the best Ships of War, and Ceremonies of Entertainment, Salutes, Haling, and Striking.
- VI. The ordering of Fleets in Sailing, Chases, Boardings, and Sea-Fights.

Useful for all that desire Knowledg in Sea-Affairs.

By *N. BOTELER* Esq; formerly a Commander in one of his Majesties Royal Ships.

London, printed, and sold by *William Fisher* and *Richard Mount* at the Postern on Tower-hill, 1688.

To the Honourable *Samuel*
Pepys Esq; Secretary to
the Admiralty.

S I R,

MEeting with this Book in
Manuscript, and liking
well the Contents thereof, I de-
sired some of my Friends to give
me their opinions of it; which
they freely did, and told me that
they thought it would be a use-
ful Treatise, not only for Sea-
men, but also for all those that
are curious to be informed in the
Menage of Shipping, whereup-
on I was encouraged to under-
take the Printing of it. But
the Author neither having re-
commended his Book by any
Dedication, nor Preface, I ..
thought,

thought my self obliged to beg
the Protection of some person
eminently skilful in these mat-
ters, to make it the more accep-
table to the Ingenious ; and
knowing your great experience
in the subject treated of, and
how great a Patron and Encou-
rager you are of the improve-
ment of Navigation, I presume
to lay it at your Feet ; and if you
shall please to accept it favour-
ably, and afford it a good Cha-
racter ; I hope the benefit will
be to the Reader, as well as to
the Bookseller, who is,

S I R,

May 19 Your most Humble Servant,
1685.

MOSES PITT.

A Discourse by way of Dialogue, of Marine Affairs, between an Admiral and a Sea-Captain.

Dialogue the First.

About Commanders in Chief.

Admiral.

Welcome Captain, I much desire to know you, and to be known unto you.

Captain. I humbly thank your Lordship, and am affectionately at your Service.

Adm. You hear (I doubt not) that his Majesty hath honoured me with that Command of so high trust, the High Admiral-Ship of his Kingdoms;
B and

About Commanders in Chief.

and because it is not to be denied, but that a long Peace hath well nigh worn out all men of Practice and Experience (especially amongst those of my Rank) in matter of War, and especially Sea-War; I am, for my part, desirous to take the nearest way, to the enabling of my self to this my present Charge; and this I conceive to be, by an Admittance and free Access of such as your self, and by advising with you; to which end I have now sent for you, that we may confer upon some such especial Points of your Art, as are most necessarily to fall within the Bounds of my Place and Office.

Capt. For mine own part (my Lord) I hold it good for us, that we have an Admiral restored unto us, and especially one of this Mind, with whom we shall not only know our certain Addresses, but find a Personal Access, and a due Dispatch, and not be wearied out by over many several Attendances, nor be abused by the Puttings-off and Slightings of subordinate Officers. And I the rather say of
this

this Mind of yours, in respect that I apprehend it very important, that not only the High Admiral (as your Lordship) but that all the Generals and Admirals of his Majesties Royal Fleets, be of that Eminency of Birth and Title, as may both silence Envy, and draw on Adventurers and Voluntiers of Worth and Eminency to serve under them, whereby all Services and Designs may be much advanced. And certainly, when such as these shall be free of Access, and desirous of Conference ; and withall be found of that Practice and Knowledge, as that they shall not need to depend too much upon the prompting of others: It must needs prove a prime Happiness, not only to the Seamen in particular, but also to the whole Common-Wealth in general.

The Admiral, Generals, and Admirals to be of Noble Birth.

Adm. As for the one, it is within the Power of our own Will to effect ; but touching the Sufficiency that you speak of, I hold it for the present a Happiness rather to be wisht for, than hoped after.

B a

Capt.

About Commanders in Chief.

Capt. It is doubtless to be wished for indeed, and as much as any whatsoever of that nature, and especially by us of this Nation, whose both Honour and Safety depends so much upon our Sea-strength and Experience: and surely this might not only be hoped for, but had too, if our Nobility in general, and chiefly those of the higher Form, would but addict themselves to the Theory of this Mystery, until the Providence of the State shall find Occasions and Means to call them to the Practice, and perhaps it were to be wisht, that the very Occasions were not altogether so absent, nor so unconstant as they have been of late; that so (as the *Spanish*, by their *East* and *West-India* Employments in this Course) our Nobility might be nourished in the Knowledge and Practice of so brave and so concerning a Profession. Neither do I conceive why there might not be an Act of State to this purpose, to injoyn our very Merchants to employ yearly upon fit terms, some certain number of Gentlemen Voluntiers in all their long Voya-

About Commanders in Chief.

Voyages by Sea, nor why the Merchant should be unwilling withal; that so we might have a Seminary of Seamen of Rank and Quality bred up amongst us, to serve upon all occasions.

Adm. You wish well *Captain*; but this will ask Time and Deliberation.

Capt. Whensoever cause calls for it, an Amends must be made then for the present, by the choice of a good natural Judgment, quick Apprehension, moderate Application, and resolute Valour, and the other Defects made up by a Council of War, orderly and impartially composed.

Of a Council of War.

Adm. It is to be believed indeed, that an able Council of War, with a tractable and moderate General, may work too much Perfection in all Actions that are to be executed upon the Land, where Councils of War may be assembled at pleasure; but at Sea, this (as I conceive) is not performed, but with much uncertainty, by reason of many Accidents that may hinder these Meetings; whereas nevertheless, there is no Place, where occasions offer them-

selves with more Variety, nor where Advantages may be gotten and lost sooner than at Sea.

Capt. It is true, and therefore (for the help hereof) it is of absolute necessity, that not only the Captain commanding under the General in his own Ship, be the most able and active of all the rest, but likewise that some selected and choice Men of the Council of War be always resident aboard with him besides; and if the General have the main stroke in the Election of these Men (as it is reason he should) that then he would be pleased to ground his Approbation, not so much from the Time of their Sea-Services, as from the Condition and Quality of the Services that they have been exercised in.

The Quality of Sea-Services considerable.

Adm. And why from the Condition and Quality of their Services, rather than from the Time and Means of Experience that way?

Capt. Because (my Lord) as a Man may have a Command in a Merchant Voyage, ten times too and again from the *East-Indies*, and yet be fitter
for

for a Master than a Captain, in one of his Majesties Ships of War; so a Man may make himself a Titular Captain, and be all his Life long in a Piratical Way, and yet understand little or nothing how to manage a stout and well resolved Fight at Sea. Because the Pirate assaults not where he expects to find a firm Resistance: and the Merchant Man fights only when he is assaulted; so that both of these may be likely enough to be very much to seek in those thorow Knowledges of true Fights, which require a fit Commander in His Majesties Royal Ships, and especially Fleets of War; and therefore, whosoever he be, that shall ground his Choice for the seeking out of Abilities answerable to His Majesties Services, from Experiences and Practices in any of these two ways only, I am much deceived if he find not himself much mistaken.

Adm. And yet you said but now, that you could wish that our Nobility in general, were used in Merchants Voyages: How is it then, that you say here, that they will deceive themselves,

About Commanders in Chief.

selves that fetch their Election from this way ?

*Comman-
ders to rise
by Degrees.*

Capt. This was not then so propounded, as a Course so to compleat them, as from thence to step immediately into a Command in Chief, in any of his Majesties Ships Royal ; but only to inure them to endure the Sea, to learn them Sea Language, and to know Sea-men : that so by Degrees, they might come, first to be Lieutenants, or (if it must be so) to be Captains in some other inferior Ships, serving in his Majesties Pay upon extraordinary Occasions, where less Care and Skill is required, and then upon the Improvement of themselves, to be culled out, and called up higher to Employments of greater Charge and Worth : for otherwise (besides the Peril) how can it but beget both Scorn to themselves, and scandal with the World ?

Adm. I perceive by this (as I said before) that there is but small hope to find any store of able Commanders for His Majesties Royal Ships for the present, nor scarce for an Age hereafter.

Capt.

About Commanders in Chief.

9

Capt. Surely, my Lord, in respect of the Quantity and Number of the Commanders, this must indeed be confest, and therefore those few of ability that we have, ought the more to be regarded and cherished; and this the rather, in that I am fully of the Opinion, and dare profess it, that all such as are to command as Captains in any Man of War, serving in His Majesties Pay, ought to be of Noble Birth and Education, and that not only in regard of the better Breeding (as aforesaid) of our Nobility in general, in this kind of Service and Knowledge which so much concerneth us; but also by reason of that free and frequent Access and Converse, which in all Actions of this Nature, is requirable and unavoidable, betwixt the General and those Captains. And besides, it may of due, and with reason be expected, in regard of their very Bloods, that the Tye of Honour and Reputation should work more actively upon them than upon the meerly bred Mariner and common Seaman, be he otherwise what he will. And surely, as in the

His Majesties Ships of War to be commanded by Gentlemen.

the making of a Gentleman an able Sea Commander, Practice is to be added to the Theory ; so more than meer Practice is requirable in the making of a Captain out of a meer Mariner : For besides the Civility of Carriage and Behaviour, the which well becomes the Place and Company they are to hold, there is also a general Judgment to be sought after, and an Entertainment fit for all Persons and all Occasions whatsoever.

Adm. I shall not go about to alter your Opinion in this particular : For, as touching the meer bred Mariner, for mine own part, I am of Opinion, that even such Seamen as are part Owners of Ships, are not so much as to be admitted to go Masters in their own Ships, whilst they serve in the Kings Pay ; for in this Case it may be probable enough, that some of them will shew themselves less forward in point of Service, and more favourable to their beloved Ships Sides, Sails and general Rigging, than shall stand with the Honour and Welfare of the Service ; neither can the Redress be found

found by the Captain at the instant of Service (be he never so sufficient, much less if ignorant) because the Masters are of necessity to be entrusted in many particulars, and in this especially, that the Sailing and Conducting of the Ship is peculiarly belonging unto him, and is his particular Charge.

Capt. And by the same reason, and upon the very same ground, it seemeth to me unfit also, that the Masters of such Ships as are in his Majesties Service, should be entrusted with the placing of most of the subordinate Officers in those Ships, and have Commissions for the pressing of the common Men into them ; for it may fall out, that in this Employment, they may mainly aim, either to bring in as many of their own Servants as they can, and that without all respect of Sufficiency ; or at the least, of their old Acquaintance and Confidents, and so make up a Pack, as well for a Party as a Concealment, whereby to contrive and act what they list, and this the Captain shall be never able to discover untill it be too late, and much less

less redress, by reason of his coming in amongst them as a meer Stranger, and not being admitted but at the last Cast, and perhaps not until the Ships Company do enter into Sea-Victual, which I dare boldly say, is the ready way to multiply all these Disorders, and may well cause all men of ability to retire themselves.

Of the resident Officers in the Kings Ships.

Adm. The like Exception likewise, or a greater, may be taken (methinks) to those resident Officers for term of Life, which are in His Majesties Ships Royal, who are the Purfers, Gunners, Boat-Swains and Cooks, for these also have the means to cull out a Company of their own Consorts, who shall mainly depend upon them, and perhaps be neither serviceable nor fit for the Places and Offices that they are entred for, nor indeed can be made use of in any other place whatsoever, upon any occasion: So that for my part, I shall willingly give my Voice that none of these kind of men; have ever any Power, or Commission given them to make up their own Gangs or Companies, when they are to be em-

employed in any Service abroad. I grant, that whilst these Ships lie idle in Harbour, or are over the Chain at *Chatham*, that these kind of Officers are absolutely necessary; for how else should His Majesties Ships there be conveniently guarded and looked unto? How can the Implements of their Cook-rooms, their Sails, Cables, and general Ropes, their Ordnance and the Appurtenances be kept and preserved, the Ships kept clean and wholsom, unless some such Officers as Gunners, Cooks, Boat-swains and Swabbers be held always aboard them, and so have their Places for their Lives? And how can these Men be furnished with Victual aboard, unless there be a Purser to provide it for them? I deny not therefore, but that such Officers as these, are in this Case to be admitted and held on, and it may be a convenient Reward also for such old Seamen as have been long Servitors, and well Deservours in His Majesties Employments. But yet it followeth not, that these, and none but they are to be used and had in their several Offi-

*Captains to
choose their
Officers.*

Offices during a time of Service, and when these Ships are abroad : because (at least for that time) they may deliver over their Stores by Inventory, to such other as the Captain shall find to be more fit and better known unto him, and be installed in their Places again at the Return of the Ships ; or at the least, that it be left unto the Captains Choice, whether he will have them with him or no. And much less doth it follow that these old Officers for term of Life, should (though they do go the Voyage) have the only Trust put upon them, (the which they now claim by prescription) of the providing and Election of their own Gangs, when the Ships are to be fully Manned ; the Complement whereof, in some of these Places, as in that of the Gun-room, amount in some of His Majesties great Ships, to no less, than thirty, forty and fifty in number. These (say I) at all times of Service, are in all Equity and Providence to fall within the Compass of the Captains Choice and Ordering, that so he may
the

the better stand answerable for them, be the better obeyed by them, and find no cause to complain, if he be not.

Capt. I cannot see how your Lordship may be gainsaid in any thing touching this particular ; for howsoever, it is likely enough that it will be distastful to some particulars ; yet will it be found necessary and beneficial for the publick Service in general. And surely, if any Elections of this kind be left to any, out of the Office of the Admiralty (and they seem to be over many to be all of them made there) it must needs in all Right and Reason belong unto the Captains, whose Reputations and Credits stand chiefly, if not solely engaged for all Failings, and whose Commands also (which have of late been much eclipsed) shall hereby be well restored and made good ; neither (to speak freely) can I discern with what justice any Captain may be questioned for any Miscarriage of his Ships Company, or about the short Executions of the Generals Instructions and Commands, whilst

Or not justly to be taxed for Neglects.

whilst he is thus barred from the Choice, and so use of his Instruments to work by; let him have Men of his own Providing about him, and then stand answerable for Neglects in general, but not till then.

Adm. I am well satisfied in this particular, and fully of your Opinion; howsoever, some others perhaps may affect the contrary, and strive to effect it. And I likewise approve (and shall do until I hear more to the contrary) whatsoever you have said touching our Sea Commanders in Chief. And the Summ thereof is, that as the High Admiral, the Generals, and the main Body of the Council of War, are to be appointed and directed by the Prince and State; so the subordinate Comanders and Captains are to be chosen and approved of by the Admiral or Generals, with the Advice, and from the Examinations of the Council of War; and that the Elections of all other inferiour Officers be (as at land) left to the Choice and Appointment of the Captains at Sea.

But

But before we forsake this Subject of our present Discourse, and make an end of this days Dialogue, I desire to have nominated unto me, all the distinct Officers belonging a unto brave man of War, such as His Magisties Ships Royal are, and to have distinguished unto me, their several charges and Commands.

Capt. I shall do it willingly (my Lord) and as briefly as I may ; And they are, the Captain, his Lieutenant, the Corporal, the Master and his Mates, the Pilot, the Master Gunner and his Mates, the Master Carpenter and his Mate, and (in great Ships) the Joyner, the Boat-swain, and his Mate, he Cockswain and his Mate, the Master Cook and his Mate, the Purser, the Steward, the Quarter-masters; and lastly the Swabber: And every one of these have augmentation of Wages, and their peculiar and several Offices and charges to look unto and to stand answerable for.

Adm. Well, and what are these their peculiar and several Offices.

Capt. I will begin with the lowest, and so pass upwards : The Office of the The Swabbers Office Swabber, and Duty.

Swabber is to see the Ship kept neat and clean, and that as well in the great Cabbins, as every where else betwixt the Decks; to which end he is, at the least once or twice a week, if not every day, to cause the Ship to be well washed within Board and without above Water, and especially about the Gun-walls, and the Chains; and for prevention of infection, to burn sometimes Pitch, or the like wholsom perfumes, between the Decks: He is also to have a regard to every private Mans Sleeping place; and to admonish them all in general to be cleanly and handsom, and to complain to the Captain, of all such as will be any way nastie and offensive that way.

Adm. Surely, if this Swabber doth thoroughly take care to discharge this his charge, I easily believe that he may have his hands full, and especially if there chance to be any number of Landmen aboard. But go on.

*The Quar-
ter-masters
Duty.*

Capt. The particular Duties of the Quarter-masters (whereof there are more or fewer, as the Ship is of Burthen) are to rummage in the Hold of
the

the Ship, upon all occasions; to accompany and overlook the Steward in delivery of the Victuals to the Cook, and in his pumping and drawing of the Beer; and to take care in general, that there be no abuse nor wastes committed in any of those Services: They are likewise employed in the Loading of the Ship.

Adm. I apprehend these Officers to be very necessary, and that not only in respect of the preservation of these necessities; but also by way of satisfaction to the Ships whole Company, that they may know that they are not defrauded of their dues and allowances in these kinds; and so may be kept quiet, from such causeless murmurings and surmises as they are (now adays) but too much addicted unto this way.

Capt. The Office of the Steward is ^{The Office of the} to receive the full Mass of Victual of ^{Steward} all kinds from the Purser, to see it well and conveniently stowed in the Hold; to look well unto it, when it is there; to take into his Custody all the Candles, and all things of that nature belonging to the Ships use: to look diligent-

ly to the Bread in the Bread-room, and to share out the proportions of all the several Messes in the Ship; to which end, he hath a several part in the Hold of the Ship designed for himself, which is called the Stewards room, where also he Sleeps and Eats.

Adm. This Office may be thought to be providently introduced; for though it seem at the first sight, to be only as assistant to the Office of the Purser (and indeed many times the Steward and the Purser are but too well acquainted) yet being cautiously conferred, and honestly discharged, it may be made use of for many needful discoveries, and serve as an over-awing of all such Abuses and couzenages as may be practised that way

*The Purser's
Office.*

Capt. The Office and peculiar Duty of the Purser, is to receive the full quantity and proportion of all kinds of Victual from the Victualler, according to the number of the Ships Company, and the times that the Ship is to be Victualled out; to take especial heed that it be every way well conditioned; to see that it be well layed up and stowed. And
this

this Purser is also, to take the List and Catalogue of the Names of all the Men and Boys belonging to the Ship, and to set down exactly the days of every Mans admittance into pay, and from time to time to acquaint the Captain with every particular, that so at the welcome Pay-day the general Paymaster or Treasurer of the Navy, may issue his disbursements accordingly, and pay by the Purser's book.

Adm. Surely this Officer ought to be a man both of integrity and sufficiency; for were it not for the Captain (I mean where there is no Muster-master present, as in the employments in guarding of our Channel) in the point of looking to have his Company full, and for the Steward, in taking notice that the full proportion of Victual be brought in: This Purser might purse up roundly for himself, and that without all discovery.

Capt. The Cooks Office is at Sea *The cooks Office.* (as on the shore) to dress and accommodate all sorts of Victual in the Cook-room according to the number of Messes, and every Mess of men that

are aboard the Ship, and this Victual he is to take by tale and weight from the Steward and Purser, and being Cooked, to deliver it to those men which are chosen by every Mess, at Meal times, for the fetching of it away : the which men it behoves him to observe heedfully, lest otherwise both himself and some other Messes be cousened of their dues, by delivering twice to one Mess : The Cook is also to take especial care, that both the Flesh and Fish be timely and sufficiently watered and shifted, for the wholesome feeding of the Ships Company : To which end there are certain men to be appointed, which are tearmed the shifters ; and which I rank as men of the Cook-room ; and therefore do not reckon them among the number of the Officers.

Adm. I doubt not but these Cooks know well enough how to lick their own fingers ; and I assure my self that their Fat Fees make them savers, who-soever else loseth by the Voyage.

Capt. The peculiar Duty of the Cock-swain is to have an Eye and care
of

of the Barge or Shalop, and of all the Implements thereto belonging, and so to be ready with his Boat Company, or Gang of Men, to Man these Boats upon all occasions; and when either the Captain or any Person of Fashion is to use the Boat, or be carryed too and again from the Ship, he is to have the Boat trimmed with her Cushions and Carpet, and himself is to be ready to steer her out of her Stern, and with his Whistle to chear up and direct his Gang of Rowers, and to keep them together when they are to wait: and this is the lowest Officer in a Ship, that is allowed to carry a Whistle.

Adm. How many be the Officers that carry Whistles?

*The Cock-
sons Office,
and who
carry whi-
stles.*

Capt. They are, the Master; the Boat-Swain; and the Cock-Swain.

Adm. What is the peculiar charge, and Office belonging to the Boat-Swain?

Capt. The Office of the Boat-Swain is, to take into his custody and under his charge, all the Ropes belonging to the Rigging of the Ship in General; all her Cables, and Anchors; all her Sayls;

*The Boat-
Swains Of-
fice and
Duty.*

all her Flags, Colours, and Pendants ; and so to stand answerable for them : He is to take care also, in especial of the Long-boat, and the general furniture thereof ; and is either himself, or his Mate to go in her and to steer her, upon all Services and occasions : He is likewise to call up all the several Gangs, and Companies of Men, belonging to the Ship, to the due executing of their Watches, Works, and Spels, and to see that they perform them thoroughly, and seasonably ; and to keep them quiet and at peace one with another : And lastly, besides all this he is (in the Nature of the Provost Marshals at Land) to see all offenders punctually punished either at the Capstan by the Bilboes, or with duckgin, at the Main Yard Arm, as they are censured by the Captain, or by the Marshal Court of the whole Fleet.

Adm. This Office must needs be of much use and necessity for the due disciplining and ordering of the Ships whole Company, and the Officers had need be Stirring, Stout, and Faithful.

But

But before you proceed any further in this way, I shall desire you to rehearse unto me what your usual and customary Punishments are at Sea ; *See Punishment.* and what these at the Capstan, Bilboes and Duckings are in particular

Capt. What the Capstan, the Bilboes, and the Yard Arms are, shall be explained hereafter, when we come to speak of the Names of the parts of a Ship. The Punishment at the Capstan is, when a Capstan Bar being thrust through the hole of the Barrel, the offenders Arms are extended at the full length Cross-wise, and so tied unto the Bar having sometimes, a Basket of Bullets, or some other the like weight hanging by his neck ; in which Posture he continueth till he be either brought to confess some Plot or Crime, whereof he is pregnantly suspected ; or that he hath received such condign suffering, as he is censured to undergo, at the discretion of the Captain,

The Punishment by the Bilboes, is, when a delinquent is laid in Irons, or in a kind of Stocks that they use for that purpose ; and which are more or less

less ponderous, as the quality of the offence is, that is proved against the offending Patient.

The Ducking at the Main Yard Arm is, when a Malefactor, by having a Rope fastened under his Arms, and about his middle, and under his Breech, is thus hoisted up to the end of the Yard, from whence he is violently let fall into the Sea, sometimes twice, sometimes three several times one after another; and if the offence be foul, he is also drawn underneath the very keel of the Ship, the which they tearm keel-raking, and being thus under water, a great Piece is given fire unto right over his head, as well to astonish him the more with the thunder thereof, which proveth much offensive to him, as to give warning to all others to look out and beware. And these are the common and usual ways of inflicting of punishment upon Sea offenders: The which also in Capital Causes, as Murthers, Mutinies, and the like, are so far transcended, that where there is otherwhiles a Ducking at the Main Yard Arm, there is a hanging executed

cuted in the same Place : But this is not done, but by some especial Commission, or at the least by a Martial Court. As for petty pilferings, and the like of that Nature, they are Generally punished with the Whip; the Offender, being to that purpose bound fast to the Capstan : And the knaveries of the Ship-boys are payd by the Boat-Swain with the Rod ; and commonly this execution is done upon the *Munday* Mornings ; and is so frequently in use, that some meer Sea-men believe in earnest, that they shall not have a fair Wind, unless the poor Boys be duely brought to the chest, that is, be Whipped every *Munday* Morning.

Adm. Let us now return to our Sea The Office of the Joyner a Ship-Bord ?

Capt. This is an Officer only used in great Ships, and is rather for neatness than necessity ; as to Wainscot, or Seel the great Cabin ; (but this Seeling is much grown out of use, in regard that it is a great Harbor for Rats, and maketh an offensive cracking noise when the Ship works much in Foul Weather)

He

He also is to Trim up those Wainscot Beds wherein Men use to Sleep ; to settle the Tables and to fix them ; to contrive handsome and convenient Benches in the great Cabbin and else where, for the stowing of small Commodities ; to make those little Boxes by the Ship Sides which are termed Lockers ; as also to fit those little Windows and Holes, which are cut out abaft in the great Cabbin and else where, which are called Scuttles : And these and the like Implements are the work and under the charge of this Joyner ; being (as I said formerly) a Sea Officer in great Ships only, and indeed no otherwise, then as a limb and an Assistant to the Office of the Carpenter.

*The Office
of the Car-
penter.*

Adm. And what is the Duty and work of this Carpenter?

Capt. You know well (my Lord) that it is the Ship-Carpenters Trade to Build Ships ; but his office that you inquire after here, is in the general, to keep Ships in repair when they are built, and chiefly when they are out at Sea ; and to this end, besides his full provision of Tools, he is to have
with

with him, all the Materials requirable thereunto; and in especial (as being most necessary for the time and Service) to furnish himself, with some spare Pieces of Timber, wherewith to make Fishes, for to strengthen and succour the Masts, if cause require; to have some spare Yards lashed (that is made fast) to the Ships Sides, if any Yard should chance to be broken; to have every thing requisite, for the mending and reparation of all the Pumps; to have an overplus in his store, of whatsoever may belong to the preservation and safety of the Rudder; to have stuff for the well Calking of the Ship, if any of her Seams should chance to open; and to have an especial care, to be very sufficiently stored, with all such needful provisions as may serve for the stopping of all accidental Leaks. In Breif, he is, with his Gang, to be so employed, that the Ship may be well fitted in general, for her well swimming and sayling, and that she be maintained in that plight and Condition.

Adm.

*what Leaks
in Ships
are.*

Adm. Now you Speak of Leaks, I pray tell me (by the way) what these Leaks are, how they may be found out, and how best stopped, and so withal, I shall come to know what the Materials are, that are requirable for that use?

Capt. We shall find a fitter place hereafter, when we come to speak of all the parts of a Ship, to tell what these Leaks are. As for the ways of Stopping of them when they are felt at Sea, they are commonly two; either within Board, which is done with much difficulty, when the Leaks be low amongst the Ground-Timbers or Hooks; for then the best Remedy is to sink down some Tallow and Coles mixed together; and in some cases, some Raw Beef, Oatmeal, Bags, and the like. But if the Leak be any thing high, it is readily and easily stopped, by the nayling of a Piece of sheet-lead upon the Place; and if it come by a Shot, this is best done, by the driving in of a Plug, (it is a Stopple of Wood) wrapped about with Canvas.

About Commaunders in Chief.

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If the Leak be to be stopped without Board, and that it be not over low towards the Keel, then it may be done by causing the Ship to heel to the one side, and so to fasten some Sheet-lead upon the place; and if the Leak prove to be over-low, that it cannot be reached that way, then the course may be to stitch or sow up a piece of a course Sail, or (which is better) some remnant of a small Netting into the Fashion of a Bag, with some long and well opened Rope-yarns put within it, and then sinking this Bag under the Keel, so to bring it up again directly, and as full as may be, with the Leak, and there to let it lie, that by the In-draught of the Water, the Oakum or Rope-yarn that is within the Bag, may be sucked into the Hole or Crack of the Leak, and thereby become stopped that way.

Adm. And surely these are probable ways for the doing of this Deed. But how may these Leaks be found out, and the certain part known where they are?

Capt.

Capt. All Leaks, where they are, are easily found to be so, by the trying of the Pumps, and many other visible ways; but the difficulty and Master-piece, is to find where they are, and in what particular part, especially when they be low, and near the Keel of the Ship, that so they may be stopped with the more ease, speed, and certainty; and though there be many courses conducing hereunto, as (when the Leak is great) by the observing of the In-draught without Board, and some other the like, yet I shall here propound unto your Lordship only one, the which, as it is not vulgar, so I hold it for most sure, and it is by taking of an empty Pot of Earth, and placing the Mouth thereof upon some piece of a Board within the Hold of the Ship, and there laying your Ear as close unto the Pot as you can; if there be any In-let of Water in the Ship, you shall hereby apparently and audibly hear it, and the nearer or farther off you are from the Place where the Leaking is, the more or less you shall hear it; so that by the removing
of

of the Pot and Board to and fro, and from one place to another, you shall at last, by the Conduction of your Ear, attain the perfect Knowledge of the certain Part and Place where the Leak is, and so the better stop it.

Adm. I thank you Captain for this Intelligence and Information, I pray now proceed to the Descriptions of your Sea Officers again, and the next in order, is that of your Master Gunners Place.

Capt. The Office of this Master Gunner, is to take into his Charge all the Ordnance that the Ship carrieth, to see that they be serviceably mounted, and sufficiently supplied with Sponges, Ladles and Rammers, that in foul weather they be traversed within Board (especially those of the lower Tire) and that the Ports be shut and calked up, that at all times they be thoroughly breeched and made fast, least any one of them should chance to break loose, to the eminent danger of the foundring of the Ship; and for the time of a Fight, he is to provide that every Peece be sufficient-

The Master-Gunner his Place.

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ly

ly manned ; He is also to be cautious and provident in the Guard of the Powder in the Powder-room, and upon no occasion to suffer any Fire to come near unto it, unless it be a Candle in a well-glazed Lanthorn ; and he is to take and give an account of all the Powder, and of the remainder thereof at all times : To which end, he is to keep a Reckoning in writing (as near as may be) of every Shot that is made, and not to make any Shot without the Knowledge and Order of the Captain, or in his Absence, of the Lieutenant or Master : He is besides to take into his Charge all the Provisions belonging to the Gun-room, which is the proper Rendezvouze of himself and his Gang (to eat and sleep in) and is to have there in a readiness a fit number of Carthrages, proportionable to the Cilenders of all his Guns (filled with Powder, if any present Use be expected) with latten Cases also, which serve as well to form as to carry them in a Fight, and thereby to avoid the danger of Fire. And in this Gun-room also,
are

are to be ordered, and handsomly placed all the small Shot belonging to the Musqueteers of the Ship, together with their Bandeliers, and due proportions of Match.

Adm. This must needs be an Office requiring a Person of Honesty, Care, and Skill: and I am in doubt, that though we are become generally somewhat defective in our Sea Officers, yet in none more than in this. But what is your Pilots Place and Part?

Capt. Pilots are properly those, who (upon Coasts and Shores unknown to the Master) are used for the Conduction of Ships into Rodes or Harbours, or over Barrs and Sands, or thorow serpentine and intricate Channels; the which they perform by their knowledge of the true depths, and the heights and flowings of the Tides, and how they set from Point to Point, with the difference of those aboard, from those in the Channel or the Shores, and by the blowings of the Winds, where the Sands are movable; and by Land-marks, which they are acquainted withal, when they are

*The Pilots
Office and
Part.*

to pass thorow any Channel or Narrow. And though these Pilots are but rarely entertained whilst the Ships are abroad at Sea, or for the whole Voyage; but having done their Parts in piloting the Ships out in the Offin, are returned to the Shore, where they have their Residence, and get their Bread in this Fashion; yet in Ships of Charge and Burthen, it were no unthrifty Providence to have one of them always aboard, to prevent all Hazards.

Adm. And I am of that mind too; For though they may be certainly had for the piloting outwards bound, yet is there as much need, if not more, of having them at the Land-fall, when the Ship returneth, which may be in such Weather as that they cannot be gotten aboard by any means whatsoever; And therefore I shall give my Vote, that to all the Ships Royal belonging to his Majesty, there be the Allowance of a Pilot, or at least, that one of the Masters Mates be known to be very sufficiently traded this way, if not the Master himself. And now

go on to the particular Office and Charge of the Master.

Capt. The Masters Place and Duty is, when the Ship is abroad at Sea, to take the general Conduction of the Way and sailing of the Ship into his Charge and Care; and to shape all such Courses as may safest and soonest bring her to her designed Ports and Places of Rendevouse; To which end, he is to see the Ships Company duly divided and quartered for the true performing of their Watches, and for the trimming and management of her Sails upon all occasions. He is carefully and diligently to look unto the Steerage, and to appoint and order that some of the Quarter-masters be always ready to cond her; he is to inquire, and to take account of all the ways that the Ship hath made, and upon what points of the Compass she hath been steered in every Watch, and as conducing thereunto, to take a View of the Traverse Board, and to consider of all the dead Reckonings, and by his Observations, to take the height of the Sun or Stars, with is

*The Masters
Duty and
Charge.*

his Astrolabe, Back-staff, or Jacobs-staff, and accordingly to prick his Card ; and upon the approach to any Coast, to use the deep Sea-line, or Sounding-line, that so he may know the Ground and Soundings ; and all this is to be done, that he may the surer and readier give an account unto the Captain of the Place where the Ship at any time is ; briefly, the Master with his Mates, are the Guides to lead the Ship in her right Way, and the Scouts to look out, that she take no harm in it any where.

Adm. But there is an extension of the Masters Office, in all Merchants-Ships far enough beyond all this that you mention here : for there I find them in a Command in Chief, and some of them taking upon them the Titles of Captains, and to go away with it too : who (I believe) were never commissioned, either by His Majesty, or any of His Admirals or Generals.

Capt. You may indeed find them there mistaken by some degrees in their Observations, and over elevated ;
and

and it is because our Merchants (the more is the pity) cannot abide to have any Gentlemen Commanders in their Ships; and it may be, the most of Gentlemen are as unwilling as themselves. But withal it hath brought forth this ill effect, even in His Majesties Ships, that of late, these Masters undergo the Command of a Captain, with a great deal of repining and sullenness, and the rather, in regard that many times they meet with but weak Captains. And as for the Usurpation of the Title, the Marshalls Court may (as I conceive) call it into question whensoever it pleaseth, and perhaps it were not unfit that it did.

The Masters of Ships are Usurpers.

Adm. Well, go on, and proceed to the Duty of the Corporals at Sea.

Capt. The Corporal his Office is to look unto all the small Shot belonging unto the Ship, and to keep them fixed and clean; together with their Bandeliers filled with good and dry Powder, and their proportions of Match; and with these he is to exercise

Corporals Office at Sea.

cise all such of the Company, as are assigned by the Captain to use their musquets in a Fight, and to practise, and thorowly inure them to all their Sea-postures.

Adm. Though this be but a new Officer at Sea, yet it is a necessary one, especially in the point of well using their Arms, and besides, it may lead on in a fit way to the finding out of a Lieutenant, for I could wish that the Corporals were Gentlemen.

Adm. And what is the Lieutenants Part?

The Lieutenants Place and Part.

Capt. A Lieutenants Place at Sea, is as the Lieutenants Place on the Shore; for in the Captains Absence, he is to command in Chief: only he is to be admonished that he be not too fierce in his Way at the first (which is an Humour whereto young men are much addicted) but to carry himself with Moderation and Respect to the Master Gunner, Boat-swain and the other Officers, that so he may not be despised, but beloved and obeyed; and when Experience hath taught him somewhat more fully to understand

stand his Place, he may grow to an higher strain, and at last attain to his affected Port, a Captain-ship.

Adm. Well then, to conclude, what are the Parts and Properties requirable in a Captain at Sea, who is to direct and command all the forenamed Officers?

Capt. There is no doubt but that a Sea Captain commanding in Chief, in one of His Majesties Royal Ships, hath as enlarged a Charge under his Hand, and of as high a Nature as any Colonel at Land; for besides, that in some of those Ships there ought not to be fewer than five, six or seven hundred men to the due manning of them, when they are to go out to Sea, the which amounts well neer to the number of some Regiments; all of which are absolutely under the Command of the Captain. He is also over and above to stand answerable to His Majesty for the whole Ship her self, and all her Ordnance; the Value and Worth whereof is seldom less than twenty thousand Pounds, and of some of them thirty, yea forty and upwards.

And

And as for the Point of Honour, What greater Honour hath our Nation in Martial Matters, than in His Majesties Navy? What greater Dishonour (besides the Loss) can there be in this kind to the State, than that such a Ship as one of these, should, either by the Ignorance, Cowardliness or Treachery of the prime Commander, fall into an Enemies hand.

*The Captains Place
and Part.*

In few Words therefore, I say (my Lord) that it were to be wished that this Commander thus entertained in His Majesties Pay, and this Service, should bring with him, besides an unsuspected Loyalty, and approved Valour; a full Experience and sufficient Skill to enable him, not only to exact an Account of all his subordinate Officers in their several and distinct Charges and Places, but so well to understand them when they are given up, as to find out all the Fallacies and Failings, discover the Errors and short Executions, and so to correct and amend them. And thus (my Lord) I have run through the Task you enjoyned me, concerning the Com-

Commanders and Officers requirable in a Ship of War; I have done it briefly, and according to my mean Sufficiency; the which, as I leave to your Lordships Censure, so I crave your favourable Acceptance.

Adm. I thank you Captain; and we will here end our first days Dialogue, and begin our second to morrow.

Capt. I shall be ready to wait.

Dialogue

Dialogue the 'Second.

About the Common Mariner.

Admiral.

WELL met again Captain. As our first days discourse pointed upon Sea Commanders in Chief, and their subordinate Officers; so let our second be concerning the common and ordinary Sea-man, and about some particulars, that in that way do most reflect on the present Times.

Captain. I shall attend your Lordships Commands and Demands.

Adm. Let us then begin with that Loathness, if not Loathing, which of late days hath so possessed these People against all Services in His Majesties Ships and Fleets. What do you conceive to be the main and true motives hereof?

Capt.

Capt. I apprehend they may be chiefly these three. 1. Some Procrastinations and Delays of their Pays, at their returns Home. 2. A stolen Trade, and Profit that way, which they find in Merchant Voyages, over and above their Wages and Hire. 3. The extravagant Hopes that they flatter themselves withal, when they serve in private men of War, where they go upon their Thirds. And 4ly. The loose Liberty and untrouled Life that they lead, when they are entertained in any of these Courses; and especially in that of private Men of War.

Adm. These are indeed likely ways all of them, to work upon this kind of Men. But what Courses can you propound for their Recovery?

Capt. Since your Lordship is pleased herein to demand and hear my mean Opinion, I shall not fear to speak freely.

First then, touching the first of these. The which, since I apprehend it might be occasioned by those mighty Disbursements, the which, a long
Dis.

Disuse did put upon the Exchequer, in the fitting up of His Majesties Ships, and the victualling of them out, together with the Failings of such Supplies, as upon just grounds might well be relied upon, and were expected would be continued; there is no doubt, but that for the future, the Wisdom of the State will find it fit, either to be sufficiently furnished aforehand, and have in possession these Nerves of all great Actions, and especially Military ones; or will forbear over vast Designs, until it be found that there is Fulness and Growth enough to grapple with them. And then I doubt not, but that one only Voyage and Employment, bringing with it a full and quick Discharge of all Pays and Arrears of this nature, will help well, to rectifie all former Misconceits, and recover all that Affection which hath been lost by the contrary Courses.

◦ *Adm.* This is not improbable. But what say you to the second motive that you mentioned, as leading to this dislike, which was the Overplus of their

their gain by their secret Trading in Merchant Voyages.

Capt. This hath in some good part, been already ballanced by his Majesties late Augmentation of Sea-mens Pay in general, which hath been improved almost half in half. For there is no Prince, or State in the World, that alloweth larger Wages to Sea-men, then his Majesty now doth to his: And that late Addition also, of providing some convenient Cloaths for them beforehand, hath bin very well thought upon. For these People, when they are left to themselves, are generally found, to make more of their Bellies than their Backs; and yet are in nothing more disabled in their Services, nor more discontented abroad then by the miss of Shift, and Sence of Cold, by the want of sufficient Cloathing: So that, if with these provent Cloaths, some small part of their Pay, might be imparted unto them, also aforehand, by way of some Spending Money) I assure myself, they would be well wrought upon, as well to a willingness to serve, as a constancy to stay where they shall find them.

Some small imprest monies allowable.

themselves so pleasingly supplied from Day to Day.

Adm. And I conceive that this might be done, without any inconvenience any way; and especially when his Majesties Coffers are full; and that care be had, that these imprest Monies, be not farther entrusted, then at the most, from Week to Week.

Proceed to your third Observation, about the Extravagancy of their Hopes, in point of Pillage, when they are employed abroad, in private Men of War.

Capt. As for this business of Pillage, (which is with them, a going upon their thirds; and that is, when they have the third part shared amongst them, of whatsoever shall be gotten) it is sure enough, that there is nothing, that bewitcheth so much; nor any thing wherein they promise to themselves so loudly, and delight in so greatly; in-somuch, that I have known some of them, who though they might look for a hanging from their own Commanders at their return, for their irregular going out; and adventured the
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the cutting of their Throats, by the Enemy, in their going out; yet stuck not to rove into an Enemies Quarter, two or three Miles, in hope only to pillage some rotten house-hold Stuff: And I saw one of these returning with a Feather-bed on his back, all that way, in an Extremity of hot weather, that was not worth ten Shillings when he had it at home. A Voyage and an Adventure, that all the Commands and Compulsions in the World, nor (as I think) ought else, save this (for these Ladds know but little of any other Terms of Honour, and Reputation) should ever have brought them unto. And by this your Lordship may know their Nature; the which in this kind and by this means, may be made use of.

Adm. It seemes by this, that you would infer, that these good Fellows (as part of a cure of their unwillingness to Services of the State) should have some allowance of Pillage granted unto them whilst they are in His Majesties Services.

Some Pillage to be allowed.

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Capt.

Capt. I would so indeed; for sure I am, that it would not only whet their Stomachs to the Service, but to the Fighting that belongs to the Service.

Adm. But how can this be done, without much dammage and loss to His Majesty, whose sole charge it is to Furnish out all His Ships and Fleets, and who payeth the Company largely and fully at the end of the action, whether the Voyage be successful or not.

Capt. But the Pillage, the which I wish might be allowed, being only that which shall be found betwixt the Decks (and of this we have a President from our thriving and thrifty Neighbours the *Netherlanders*) is not of any such considerable Value, as to extend to any notorious loss to His Majesty by their pillaging of it, and yet the very only hearlay of an allowance, shall not only (as aforesaid) entice and recover them to a forward employing of themselves in these Services, but withal make them adventurous and stout in Fights, when they are brought
unto

unto them ; whereas at the present, not finding any other Taſt or Feeling this way, or by this means than danger and knocks, and that it is all one with them, whether they take any Prizes, or take them not, they propound it, as the ſafeſt of their ways, to receive their pays in a whole Skin.

Adm. I muſt confeſs, that you have ſatiſfied me in this particular alſo ; But what ſay you to that fourth motive you mentioned, which was that of Liberty ?

Capt. Surely Experience hath taught, that thoſe ſo ſtrict reſtraints, which ſo frequently have been urged of late, and wherein, the Captains have received ſo peremtory Commands againſt ſufferance of their common Men to go on ſhore, whiſt they lay in Harbour, in His Majesties Ships, which hath been ſometimes, three and four Months together, inſtead of preventing a going away, and running from the Service (which was aimed at) have produced the quite contrary effects ; for theſe prohibitions being not in poſſibility to be made good to any purpoſe,

Mariners not over rigorouſly to be kept on Ship-board, when they are in Harbour.

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by reason of the many Shore-boats, that haunted the Ships continually, and stole aboard them in the night time; wherein the Mariners got to the Shore, in spite of all care to the contrary: They being thus gotten on Shore, and having there spent their little money, they became (as they grew sober) to be so galled from a return to their Ships, for fear of the punishment due unto the breach of the restraint, as that as many of them as could (and some of these Officers) conveyed themselves quite away, and utterly forsook the Service; the which but for fear of this punishment, in all likelihood they would not have done; and yet would rather adventure upon any hazard, then to be so imprisoned and strictly held on Ship-board, within smell and sight of the Shore, as their Captains were compelled to keep them.

Adm. This may well be; and besides, I conceive that another mischief might hereupon also ensue, in that the long and continual Tying of these Men to the Salt Fare and Feeding upon Sea Victual, before they came to
any

any Service or Action, could not but be one main means of the much Sickness, and Infection, that hath of late been every where found amongst them, whereby they became utterly disabled in the Service when they came unto it.

Capt. Your Lordship judgeth rightly; and in these respects, I must confess, that for mine own part, it is mine opinion, that our Sea-men are not to be farther restrained from going to the Shore, whilst the Ships lye in Harbour, then only that they are to acquaint the Captain, or in his absence, his Lieutenant, or the Master, with their going, and to ask their Licences; the which may be left to their discretions either to grant or deny, as they shall find cause and occasion,

Adm. Well Captain, you have spoken sufficiently to the four particulars, which you delivered as Causes and motives of the present distastes that the ordinary Sea-man hath fallen into of late, against all Sea Services, in His Majesties Ships of War; and I approve also of the remedies you have prescribed, to be very probable.

But you know withal, that the Insolencies of these People, are at the present, so overgrown, as that upon the slightest occasions, these Lads have been found with nothing more ready in their Mouths, then that mutinous Sea-cry, *One and All*; and you have seen them affronting Justice even in the High Streets of the City, and at the very Court it self, and Seats of Justice they have been heard in Tumults and Out-cries; so that it may be doubted that these Lenitive Potions you have prescribed, will not work to any perfect and thorough Cure, upon such Surly-natured Patients, whose Diseases may be feared to be inveterate and deeply over-spread.

An over Indulgency to be shunned.

Capt. Indeed (my Lord) these times have produced new examples, and unusual Distempers in these kinds; and they have rather been fuelled then allayed by an over Indulgency; in that these Men have found their Tumultuous Clamours and demands contented and satisfied, by this Rude and Boystrous, (not to say rebellious, Course of seeking them; a president that may

may be feared of worse Consequence then (thanks be to God) hath yet been felt ; unless it shall be thoroughly and seasonably looked unto, if ever any the like occasion should be offered hereafter : For it is Certain, that no due or right whatsoever, is either to be given or gotten the wrong way.

Adm. You hold right ; so that perhaps, this Cure will scarce be perfected without some Corrosives.

Capt. Due and fit experiments being first made, by these gentle and winning prescriptions formerly propounded, as ways of perparation ; if they prove or work not, there may and must be added unto them, severe poenal Prohibitions against their serving abroad with any Forraign State unless particularly Licenced, and due Executions of some such warranted Inflictions, as have anciently been practised upon all such, who having been impressed into the Princes Services, and received his imprest Monies, shall dare either to run away or hide themselves from these employments, after they have been Mustered ; or shall not pun-

*Run-aways
to be severely
punished.*

ctually and orderly present themselves at their appointed times and places of Rendezvous, after they are impressed. In all which particulars, it is more then time, that some pickt and choice Examples had been offered to the World and Age ; and that not only in the Persons of the Refractory Run-aways, but upon all such likewise, whether Natives or Strangers, as shall dare and presume to entertain them, much less entice and hide them away, after they have been commanded into any of his-Majesties Services.

And for the more thorough Execution hereof, it is the opinion of some Men, that it were fit that some of the most Ancient Sea Captains that have Commanded in his Majesties Ships Royal, should be always commissioned, for the ordering of Delinquents of this nature, and to have Authority in themselves, and power to call in unto their Assistance any such of his Majesties Officers, (as Costanbles, Justices of the Peace and the like) as may best and fittest be had in all Places, where the Offenders shall be found, that so due punishments may
be

be inflicted upon all Seamen, and others, as shall be any way, or in any place, in any of these kinds found in their Insolencies and Disorders; and that these Captains, thus commissioned, (that they may be the better known) should be distinguished, by some Ribbon about their Necks, or Truncheons in their Hands, or both; the which they (and none but they should be suffered to wear and carry.

Adm. I differ not from you in any of these particulars; and touching this last, I assure my self, that as it would work much to a due respect of these Captains among Sea-men in general, so it would either reduce these Libertines of our Age, unto their old (*Queen Elizabeth*) Obedience and Discipline, or leave them to the sufferance of deserved punishment, without all Excuse or Pity; for there are no ways of Government either just or prevalent, but *Premio et Pena*.

But Captain, before I can dismiss you, from this Days meeting, in regard that I have heard it said and lamented, that there is, at the present, an unwonted

*A general
want of
Sea-men.*

wonted want of Sea-men in general within his Majesties Dominions, and that as well in respect of number as sufficiency, I would entreat you to offer and present some such Ways and Courses, for the better breeding and multiplying of these so necessary Hands, as either in your Apprehension, Experience, or both, you do conceive to be most proper and probable.

Capt. Having your Lordships Command for it, and having adventured thus far already, under your Lordships protection, and with I hope some approbation, I shall readily and briefly deliver my poor Opinion in this particular also.

It is not to be denied (my Lord) but that all Tradings upon the Water, and every Employment in that kind of Life, may be allowed and accounted in their several Degrees, as ways tending to the encrease and breed of Seamen; for who knoweth not, but that the continual rowing in our Wherries, between *London-bridge* and *Westminster*, maketh expert Oar-men; and this is one step (though the low-

lowest) towards the Attainment of this Art, and Occupation ; and therefore I hold it good Prudence (by way of farther improvement) that in all Sea-services whereinto any Men are impressed, some numbers of these Fresh-water Sea-folk, be found out and employed abroad ; and that even the Merchants themselves, be admonished to use some of them aboard their Ships, in their shorter Voyages ; provided that they be no where relied upon at the first dash, for any farther piece of the Ships sufficient Manning, than only to row in the Boats, and for a while also in fair Weather only ; for otherwise it is to be confest, that there may be a want and danger.

Adm. You say well ; for there are many of these Water-men, stout and able ; and besides their daily Practice at the Oar, the only Air of the Water, and the motion there, must needs make them sooner Seamen, then such others, as are not at all, or but seldom used unto it, though considered but in the particulars, of Sea-leggs and Sea-stomachs,

Capt.

*Water-men,
and Fishermen,
to be bred Mariners.*

Capt. The second growth which I find in our Nursery of Sea-men, is amongst the small Fisher-Boats, used in our Rivers, Creeks, and close by the Shoars ; and those of these growth may be admitted unto the second Form in our Sea-school ; for besides the Sea-leggs, and Sea-stomachs, that they have very good and perfect, they have some few Ropes and Sayls to handle and mannage also; some Grapnels to employ and look unto, and are passing well fore-sighted about sudden Gusts, Storms, and change of Weather ; and therefore I could wish, that of these also, some were always had aboard and carried out to Sea, that so they might be inured to live out of sight of Land, to learn new Ropes and more Sayls, to get an encrease of Sea-language, and to know and Steer by the Compass ; the which they would nimbly do, and one Degree sooner, than your former fresh Water-men ; and therefore it is pity, but that they should be preserved in all their Rights, and by all means and favourable usage, be encouraged to grow and multiply.

Adm.

Adm. It is indeed pity that these poor *Sea Fisher-*
Men should be any way disheartned ; *men some*
for a good many of these petty Fisher- *made perfect*
men there are, that in a short time might *Mariners.*
be made good Sea-men.

Capt. A third Rank and Order of
Sea-scholars, are tutored among those
bolder Fisher-men of ours, who not
only dare lay the Shore, and Fish out of
sight of it, or Sayl as far as *Ireland* for
their Herrings, but adventure upon the
Coasts of *America*, and fish at *New-found*
land, and upon the *Bank* ; and these
as they are bolder Men, so they have
bigger Vessels, fitted and rigged with
all the Ropes, Sayls, Masts and Yards
that belong to a good Ship, and be-
come hereby thoroughly acquainted
with every Inch of them, and can rea-
dily mannage and order them with suf-
ficient Dexterity ; and can also take
their turns at the Helm ; so that with a
little larger experience, they soon grow
up to be very stout and active Men, for
any Service and Employment that they
shall be put unto. These therefore
are carefully to be cherished in their
ordinary Courses : The which may be
done

done by Courses of Provision, for the convenient Venting and Sale of their Fish, when they bring it Home; and hereunto his Majesties Proclamation, touching the due and thorough observation of Fasting-days throughout all his Dominions, doth providently tend: And whensoever our wonted Fishing with Busses shall be reestablished, it will questionless be a main mean to work to an Increase among them, and to incourage and breed a Seminary of good Saylers this way.

Adm. I am confident with you in this, and were there nothing else in it but this Busse-fishing, were a work of regard, and no doubt but may both require and requite the noblest Adventurers.

The Coal-ships bred Sea-men.

Capt. A fourth way of breeding of Saylors with us, is found with our *New-Castle Colliers*; the which though they are but Coasters, yet by their employing of many Ships, and many of them good ones; and by finding occasions enough in our Northern Seas, and especially in their Winter Passages to put them to them to the best of Skill and

and practice, they do not only take up and employ many men, but make many good Sea-men likewise, who in a short time, by a few enlarged Voyages, do attain to be accomplisht Navigators, and send out from among themselves, some such Officers, as may take charge in the most of Merchant-Voyages : So that this Coal-carrying Course, is not only to be well protected from Enemies in time of War, and Pirates in time of Peace, for Fewel and good Fire sake ; but also for the maintenance of good Shipping, and the multiplication of Mariners.

Adm. No doubt but it that worketh well both ways ; only it were to be wished that they would be won to Man their good Ships better than (for Lucre sake) they usually do ; for I believe that many of them are Yearly lost by this means to a loss to the Common-Wealth, as well as to themselves.

Capt. Questionless (my Lord) the over slack manning out of Ships procureth the loss of many an one of them ; and therefore I hold it a dangerous thrift and chiefly in long Voyages of Mer-

*Ships of
War to be
well man-
ned.*

Merchant-men, and at all times of Action, in Men of War, where there are so many occasions to use many Hands: And I see not but that the biggest and best of Ships, especially if this great Ship be any way open built (of which we shall have occasion to speak more hereafter) may, in a Fight be wronged and taken to, by an Enemy not half so great nor good as her self, that shall over-top her with Men; for what can hinder the smaller Ship from laying of the greater aboard, whensoever she hath the better of the Wind; and being once Board and Board with her, how can it be helped (unless she be very extraordinarily fitted with close Fight? which but few of the greatest Ships of *England* are) but that being more numerous and stronger in Men, she shall enter as many of them, as she list, in some one part or other of her Enemy, in spite of all disadvantage of Ship, and all opposition; and so by oppressing her with Multitude clear her Decks, and take the Ship: and this I say may well be expected, and as easily effected, whensoever a great Ship

Ship much under-manned, is thus assaulted by a small (and otherwise weak) Ship, that hath many more Men than her self; unless (as before said) this great Ship be thoroughly contrived and armed with Decks, Bulkheads and the like, proper for a defensive Fight; and such as shall hereafter be prescribed, when we come to treat of the best Ships of War.

Adm. I find no ground for Contradiction here. But Captain, since we are fallen upon the point of Manning of Ships, I desire to know (before we go on in the particular touching the breeding of Mariners) whether you have, or whether there may be any Rules of Proportion for the due and sufficient manning of Ships in general.

Capt. I have heard (my Lord) of some Propositions of this Nature; and some would have the Proportion to be taken after the number and quality of the great Guns that the Ship doth carry, with an answerable allowance of some spare Hands for the handling of the Sails. Others conceive

*Of Rules
for Man-
ning of
Ships.*

ceive that this Rule of Proportion will hold truer, with a respect to the Ships Burthen; and then they will have it, that in all Ships, from forty Tuns of Burthen to four hundred, there be an Allowance of one Man to every four Tuns, and so a Ship of four hundred Tuns in Burthen, is to be manned with one hundred men, and so ratably downwards; and from four hundred Tuns upwards, they will have an Allowance of one Man to every three Tuns; and then a Ship of six hundred Tuns in Burthen, shall be manned with two hundred men, and so accordingly upwards. But for mine own part, I cannot find how this Computation can be brought within the compass of a Certainty, but must be varied and regulated according to the length or shortness of the several Voyages that Ships are appointed out for, and with a respect to the Services and Occasions that they are to be employed in; for who knows not, but that for a short Voyage, a shorter number of Men may be sufficient, than for a longer; where
it

it may with all reason be expected, that the length of Time, and often mutation of Climates, will cause some Mortality, even among Merchant-men; and so likewise in Employments in Men of War, when an Enemy is looked for, and where Blows are to be given and taken, there is in all discretion, a larger number of Men to be maintained aboard, than when there is nothing but a peaceable Voyage expected.

Adm. Surely Reason compels a full Consent to you in this, in mine Opinion: And therefore I pray now return to your Sea-Seminaries again, of which, you have already particularized four.

Capt. A fifth way of breeding of Seamen amongst us, is in our Merchants Voyages, and this is a great and an important Seminary of Ships also, as well as of Sea-men; and herein also (though they are seldom and scarcely bred up perfect Sea-Soldiers) yet may they grow to be accomplished both Mariners and Navigators, and be very sufficiently enabled for all Services in

Perfect Mariners, but not Sea-Soldiers bred in Merchants Voyages.

this kind ; and therefore (though it were but for this alone) are these Courses in all reason to be protected and cherished, and especially such of them as overreach not in point of distance ; and such are those Voyages and Tradings into the bottom of the *Streights* one way, and into the *Sound* and those East-Countries another way ; for, as for that tedious Travel, which requires a double doubling of the great Cape, I must make it a due and requisite Quære, whether it make or mar Mariners most ? that is, whether there be not as many good Mariners lost by the length of the way, and the often alteration of Air and Climates, as gotten by that Practice and Experience.

Adm. And I promise you, that for my self, I shall demur with you upon this also, and therefore go on in your way.

*The best
Sea-Soldi-
ers bred in
His Maje-
sties Em-
ployments.*

Capt. The sixth and last way of making of Mariners with us, is by the Service in His Majesties Fleets and Ships Royal, and that especially in the time of a War ; for herein they may
not

not only attain to whatsoever can be taught in any of the former ways, but to an addition of being as well Sea-Soldiers as Sea-men: Here may be learned Discipline and Obedience, the use of their Arms, and chiefly of their fiery Weapons, and the Sea-Gunners Art; the most opportune Courses to be held in the sailings out of Fleets, for Comeliness, Convenience and keeping of Company; the best and most proper parts for all Rendezvous and meetings again upon any Separation; The Advantages that may be lost and gained in all manner of Chases; the best ways and helps in all Sea-fights; the safest and fittest Forms to be practised upon all occasions in all Sea fights and Battels upon the Sea; the surest and most probable ways for any Fleet, either to offend another, or secure it self, being put unto it, in any Rode or Harbour, with other the like Dependencies.

But because it is neither to be hoped nor wisht for, that a War should be immortal (though hereby the Spanish Monarchy, and the States ob-

tain an Advancement of Sea-Strength, as well as Land, beyond all others in the Christian World:) It is therefore a fit Common wealths Act, that every one of these six several Nurseries formerly noted, should be well fenced, watered, and manured in their several kinds, that so they may altogether and joyntly produce such Fruit and Encrease, as may be pleasing to all true English Hearts, and profitable to the whole English Empire in general.

Adm. I wish it be so. And with Thanks bid you farewell until to morrow.

Dialogue

Dialogue the Third.

About the Victualling of Ships.

Admiral.

Good morrow Captain. Let the Subject of this days Discourse be about the Victualling out of Ships and Fleets; and in the first place I would be satisfied by you (for you must needs know if there hath been any such matter, having been a Commander in all our late Actions abroad) whether that so fierce and general cry, as well against the Quantity as Quality of the Victuals, hath been just and deservedly, yea or no?

Capt. I must needs say (my Lord) that I have only not heard this, but have had my share of the Trouble and Ill of it; for the common Seaman, finding himself never so little aggrieved

grieved this way, and missing the Victualler to be revenged of (who is far enough out of his reach, when these kinds of Tryals and Complaints come upon the pinch and are in agitation) he takes his next way, either to the Purser, Master, or Captain himself, (if he appear first in sight) and vents his clamour and Spleen amongst them, and many times against them, as if either they were in the fault, or could redress it, when there is a fault.

Adm. But how comes there to be any fault; for as touching the quantity of Victuals, I have heard it generally and confidently spoken, that there is no Prince nor State, that, by a good deal, maketh so large an allowance of Victuals to Sea-men, as His Majesty doth; whence is it then, that there have been so many complaints of late of this nature?

Capt. It is indeed true, that as well in ways as Victual, our *English* proportions, are very transcendent, and in the particular of Victual (especially of Bread) it is indeed more than can be eaten; But the Original and ground of

The English allowance of Sea-Victual transcendent.

of complaint, in this particular, hath been, in that the Marriner hath conceited himself, to be shortned and defrauded in that Quantity, which they well know to be allowed unto them by the State

Adm. And upon examination and proof have you found this to be true at any time ?

Capt. I must needs confess, that in our late, and especially latest Voyages, I have more than once found twenty or thirty of the common Sea-men of the Ship, waiting at my Cabbin door at a Dinner time, with sometimes their Beef, sometimes their Pork in their hands, to shew me how small the Pieces were, and how much under the quantity and weight proportioned unto them for their dues : And this indeed I evidently found to be so, but could not redress the wrong, nor right them, by reason that every Cask and Hogshead, being to contain a certainty of so many pieces of Beef or Pork, and every Piece to be of such a weight, if I should have made up the full of the weight, that was to have been for the quantity

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quantity of their allowed Meals, to every particular Person, by an addition of some more Pieces, it would of necessity have followed, that the general proportion in gross, which was to serve so many Men for so many Months, must have failed long before the limited time of Service abroad would have expired; the which might have hazarded a general starving of all the Ships Company.

Adm. It may seem by this, that the due and full quantity of Victuals in these kinds allowed by the State, for the Ships Company, and expected to have been in the Ships Hold, for the prefixed Time of Service abroad, was not laid into the Ship; for though there were the full number of Pieces of Beef and Pork, yet there was a want in weight and quantity; so that there were so many Pieces indeed as there ought to have been, but not so much in Substance and Flesh; the which, if it were so, was a foul Coufenage, and a desperate Abuse, and might (as you say) have occasioned not only a general Mutiny, but a general Ruin.

Capt.

About the Victualling of Ships. 75

Capt. It might so, and yet the abuse <sup>Under Vi-
ctuallers</sup> proceed from some inferior Officers, as <sup>and such to
be suspected.</sup> from the Butchers and Cutters out of the Flesh, or from some other particular under-Victuallers, or perhaps from the ill choice of the Beasts, as being Lean and Old, which might cause the Flesh to shrink in the seething, rather than from the prime and general Victualler, who, I perswade myself, did take a great deal of care to the contrary.

Adm. Be it from whomsoever, or wheresoever, most necessary it is, that a thorough Redress should be found, for the future. But what say you Captain concerning the general quality of the Victual in point and condition of goodness and badness.

Capt. Truly in this also I must needs say, that there hath been found and felt very ill dealing, and that not only in the provisions of Flesh (which perhaps may be somewhat excused, by the unfitness of the Time of the Year, that of necessity they were to be made in, which was in the very Heat of the Summer when Flesh will not take Salt) but

*Iron bound
Cask very
necessary.*

but in the Rotteness of the Cheese, vile-
ness of the Butter, and badness of the
Fish; the which sorts of provisions
cannot allow any the like excuses: And
as for our Beer in general, it was not
only very ill conditioned, but a great
part of it lost, by a new device of pet-
ty saving, in not affording some Iron
bound Cask for the lower Tire of Beer,
so that (for mine own particular, and
I assure my self, that I suffered not
single in this way) in that Ship of His
Majesties, wherein I commanded in
the last Voyage for *Rochell*, when we
thought to make use of that Beer which
(for our last Refuge) had been lodged
in our Ballast, we found Seventeen
Tuns of it, to be leaked out end for
end, and this only thorough the want
of a few Iron Hoops; so that we were
all of us put to the Drinking of Stink-
ing infectious Water for Fourteen days
space; the which, had it but continu-
ed with us, as long again, as in all like-
lyhood it might have done double the
time, it could not but have occasioned
so main an infection, and Death a-
mongst our Men, as might have en-
dangered

dangered both Ship, Men and all.

Adm. Surely these kinds of good Husbandry, as they may fall within the compass of any common capacity, so they are to be accounted but common Counsel.

But Captain, what Cure and preservatives could you propound against this dangerous, bad, and short Victualling out of our Fleets for the future?

Capt. Your Lordship commanding me to speak, to a point that is so fit to be spoken of, I shall not fear to do it freely; And I say, that if this great and general Victualling out of our Fleets, be a work over vast (as many think it is) to pass under the Care and managment of one only Victualler (be he never so diligent, sufficient, and well credited) who of necessity must entrust divers and different Deputies in sundry Ports and Parts, being Creatures for the most part, that are no farther interested nor true, then to their own ends, why may it not be believed a surer and more proper way that (after the manner of other Countries) the Captain, with the Purser and Master of

The Captains are Victuallers abroad.

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of every particular Ship, having the same allowance from the State, that the Victualler now hath, should have committed unto their care and charge, the Victualling out of their own Ships and Companies, in which and with whom themselves also are to go and share, and that to such a quantity, and in such a quality, and by such a time, as they are to stand answerable for upon their Perils.

Adm. For mine own part, I find no reasonable exception against this, unless it may be pretended that it will intrench too far upon the Office of the Royal Victualler.

Capt. If it shall be thought so (my Lord) and that this Office in respect of the Royalty of it, is not to be touched nor altered, it will follow then of necessity, that out of this Office there must be providently and timely furnished, sufficient Magazins of all sorts of provisions, in all such several Ports as lye most convenient and proper; and that sufficient means be provided, and warning given for the doing of this Work; that so all such Vessels as are
to

to make up the Main Body of any Fleet at any time, for any occasion, may thereafter be ordered and appointed to receive and take in their Victuals and provisions from several places, and from thence to make their repair to the general Rendezvous of the whole Fleet at the due appointed Time.

Adm. This particular deserves to be thoroughly taken into consideration, for it may be feared, that unless there be an application of some good means of Cure, by this or some other the like way, that these disorders and abuses will work to some farther ill and prejudice at one time or other, and truly we have already missed it very narrowly : For as it is certain that many of our best Ships, in the last *Cales* action, were in eminent danger of perishing at Sea, and of never harbouring of themselves again any where, through the want of hands to mannage their Sayls, so great and general was the infection and Death of our Mariners, in that so short a Voyage: So this Infection was thought to proceed mainly, from the unwholsomness of their Victual in general.

*Bad Victuals
als cause
Infectious
Diseases.*

Capt.

Capt. Our badness of Victual might well be one main original cause hereof, I confess, but nevertheless two other ills there were besides, which concurred at that time to enlarge and set it forward; which were, that the Ships in general were extraordinarily pestered with Land Soldiers; and that there were no Hospital Ships appointed in the Fleet (or at the least but a few, and those at the latest) that so the Sick and infected might have been separated from the Sound.

Adm. As for the pestering of the Ships, that you speak of, I cannot see, how it could be helped, considering that there were so many Land-men to be transported in so few Ships.

Capt. It is true, that a Land Army of any Strength cannot be transported in any long Voyage, but either at an excessive charge by a very numerous Fleet, or with an extream danger of loss of Men, by Infection and Sickness, when the Ships are over pestered; for Land-men (unused to the Sea,) by reason of their Sea-sicknesses, their Nastiness, and Laziness, beget at Sea,

a thousand Diseases, as well to others as themselves ; so that whensoever a Fleet is found in this condition, an especial care and strickt Course is to be taken, that the Ships be not only kept clean, and washed every day, and that (if it may be) with Vinegar, by the Swabbers, and have some fumes of Tar, Pitch, and the like often burned below where the Soldiers Sleep ; but that the Boat-Swains and Quarter-masters be injoynd to cause the Soldiers to keep above the Decks, and in the Air, all fair weather, in the day time ; and when it is foul and rainy that they be held below, that so they may keep their Cloaths dry ; for there is nothing more unwholsom at Sea, than to Sleep in wet Cloathes ; the which being once wet, these Soldiers must needs do, who seldom have any shift or change.

And to the end that the Soldiers may upon all occasions, be the better ruled and ordered by the Sea Officers, whilst their own Commanders being as sick as themselves (and perhaps some of them as unruly) cannot do it, it were to be wished that the Sea Cap-

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*Landmen to
be com-
manded by
the Sea Of-
ficers at
Sea.*

tains (for the time of the Landmens being aboard their Ships) might have as full a Command over them as their own Commanders when they are on the Shore, or at the least, that both Commanders be so equally commissioned, that their Commands may go joyntly together ; for the Land-Officers being generally more Subject to Sicknes, and disabilities that way, then (at Sea) the other are : If it should fall out, that by their Sicknes or Death their Soldiers should be left without a Commander, there must needs be expected many disorders and much danger ; and especially when the Landmen do much overtop the Seamen ; It being withal manifestly known, that Land-Soldiers, are not only ignorant of Sea-sufferances, but withal very impatient, and given to Mutinies and Actions of that Nature, upon the least sence of Hardship in any of those ways.

Adm. I confess that this Course seemeth unto me necessary enough, nor need it be taken in ill part by the Land-Commanders, for (if they be temperate men) they will rather with
for

for an Assistant (especially at such a Time and in such a place, where themselves may expect to be disabled by Sickness or otherwise) than any way grudge or be repugnant unto it. But Captain, what do you farther say about those Hospital Ships, that you spake of even now?

Capt. I say (my Lord) that most necessary it is in all fleets (especially ordained for the transportation of a Land Army) that a main care be taken, that every Squadron of that Fleet, be sufficiently furnished with these Hospital Ships, and that these Ships be appointed and known before the Fleet do put out to Sea; and that they be fited with convenient Cabbins for the receipt of Sick People; and that each of them have an able Chyrugion with his Mate, residently aboard, with their Chests and Instruments; and that as any, either common Man, or common Officer shall fall Sick, especially of a Sickness known or suspected to be contagious, in any Ship of any Squadron, that he be with the first opportunity removed and received into that Hospital Ship,

*Hospital
Ships most
necessary.*

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which is set out for that Squadron, that so the Sick may not only be separated from the Sound, but be also the better looked unto, and provided for.

Adm. This is a provision both pious and provident. But let us now return to our Victuals, wherein there is one point more that I desire to be satisfied in; and that is, whether it were not more beneficial and preservative for the Health and Strength of our Men, that the main of our Victualling, were in the kinds thereof, altered, and nearer fitted to the manner of foreign parts, rather then as at the present with us, to consist so much, of Salt and Powdred Meats, in Beef, Pork and Salt-Fish?

*Our Salt
Victual too
much in use
at Sea.*

Capt. Without doubt (my Lord) our much, and indeed excessive Feeding upon these Salt Meats at Sea, cannot but procure much unhealthiness and Infection, and is questionless one main Cause, that our *English* are so subject to Calentures, Scarbotes, and the like contagious Diseases, above all other Nations; so that it were to be wished, that we did more conform our selves,
if

if not to the *Spanish* and *Italian* Nations, who live most upon Rice Meal, Oat Meal, Biscake, Figs, Olives, Oyl, and the like; yet at the least to our Neighbours the *Dutch*, who content themselves, with a far less proportion of Flesh and Fish than we do; and in stead thereof, do make it up with Pease, Beans, Wheat, Flower, Butter, Cheese, and those white Meats (as they are called.)

Adm. It were well indeed if we could bring our selves to this provident and wholsom kinds of Sea-fare; but the difficulty consisteth, in that the common Sea-men with us, are so besotted on their Beef and Pork, as they had rather adventure on all the Calentures, and Scarbots in the World, than to be weaned from their Customary Diet, or so much as to lose the least Bit of it; so that it may be doubted, that it would set them upon a loathing, and running away, as much as any other thing whatsoever.

Capt. I confess, that it is no easie matter by any new reason, to take of these Lads from an old Custom; and

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yet would they but patiently consider of the well and lustty subsistence of the *Italian, Spanish and Dutch Nations*, who hereby live far more healthfully at Sea than they do; or but of our Colony People in *St. Christophers, the Barbados, Virginia, and the Bermudas*, who for the most part live, and thrive well with their Husked-homeny, and Lob-lolly (as they tearm it) which they may make of the *West-Indian Corn* called Maiz, it would perhaps work them to some willing conformity in this particular; or if not, it is fit that they should be used like little Children, or peevish Patients and made to keep a good Diet whether they will or no.

*Maiz, an
excellent
Sea-Food.*

But howsoever, sure I am, that this Maiz, is a most excellent Sea-food, and most proper for long Sea-Voyages; for (as it may be easily ordered) it will keep extraordinarily, and withal is very nourishing and healthful.

Adm. But I see not of what use it can be with us, since it groweth not in these parts, nor is here any where to be had.

Capt.

Capt. I know well (my Lord) that these Northern Climates produce not these kinds of Grain; for neither the Heats of our Summers, nor the Strength of our Soil will bear or mature it; I do not therefore propound it as a Provision for our Ships outward Bound, but only to intimate, that whensoever we shall have Occasion, and Leave to look once again towards the *West-Indies*, that then this kind of Food may be found most useful for a Supply of Victual to all such of our Ships as are bound that way, and that, either whilst they are there, or when they are to return.

To which end, it will then be necessary, that all our Southern Colonies be instructed to employ themselves (rather than as at the present upon smoaky Tobacco) in planting, and storing up so necessary and useful a Commodity, that so an abundance thereof may be ready for all such Fleets and Ships of ours, as shall be employed that way; the which is to be taken off from the Colonies at

reasonable and honest Prices, with such needful Merchandise, as is requisite for their Use; that so it may become their staple Commodity, and a surer means of Subsistence, than Tobacco is likely to be.

The Bermudas of especial use and Consideration.

And as for the Islands of the *Bermudas* or *Summer-Islands*, give me leave to assure your Lordship (as one that well knoweth them, and shall be ready to demonstrate it evidently, whensoever I shall be called unto it) that (in regard of their natural Strength, the safety of their Harbours, their most opportune Situation, their Salubrity, and their wonderful Production) they are the most advantageous Piece, not only within His Majesties Dominions, but of all those Parts, for to make use of, in all those Western Services, and especially Sea-Employments upon any of those Coasts; and in that regard, do well deserve, both to be cherished and well looked unto.

Adm. Well Captain; I will trouble you no longer at this time, but shall take these your Informations concerning

ing Victualling and Victuallers into
farther Consideration, for I find it a
matter of much Moment and Conse-
quence.

Dialogue,

Dialogue the Fourth.

*About the Names of all the Parts belonging to a Ship of War.
And the Words of Art used by Seamen at Sea.*

Admiral.

COME on Captain; our Discourse this day shall be for the Explanation, not only of some Words of Art belonging unto your Mystery, but for the understanding of the Names also, and proper Appellations of all the Parts and pieces that are appertaining unto a Ship, and especially a Ship of War.

Capt. My Lord, although this Task may sute more properly with a Ship-Carpenter than a Sea-Captain; who, perhaps (like an old Scholar) may forget

forget to say the Rules of his Sea-Accidence, and that a very Ship-Boy can do it as well as either of them both; yet to satisfy your Lordships Command, and in regard that it will withal much conduce to the true digesting and clearer understanding of whatsoever shall be required and spoken hereafter, concerning the Choice of the best Ships of War, and the bringing of them into Action; I shall not only use mine own Memory, but the best Helps of my Memory, to do your Lordship Service in this particular also.

Adm. I thank you.

Capt. I will begin then with that which is termed the Hull of a Ship, and so from the more general to the particulars, and then from the particulars below, to those upwards.

Adm. Well; and what is that, which in the general Appellation is called the Hull of a Ship?

Capt. The Hull, is nothing else but the main Body or Bulk of a Ship, being without Masts, Yards, Ropes and Sails.

Adm.

*The Hull,
and the
Sea-word
Hulling.*

Adm. What mean you then by your Sea-word of Art, Hulling?

Capt. When a Ship being at Sea, doth take in all her Sails, so that nothing but her Masts, Yards and Rigging are abroad, she is said to lye a Hull, or to Hull; and this is done, sometimes in dead Calms, to preserve the Sails from beating (and so spoiling) against the Masts; and sometimes in foul and over-blowing Weather, when a Ship is not able to bear any Sail abroad, by reason of the Violence of a Storm.

Adm. To observe your Method; tell me next, what you name that piece of Timber which lyeth lowest in this Hull of your Ship.

The Keel.

Capt. The first piece of Timber which lyeth in a strait Line in the Bottom of a Hull of a Ship, is called the Keel; and it is the Foundation or Basis whereon all the rest are fastned, and the one end thereof is at the Stem, and the other at the Stern of the Ship; and to this are all the Ground-Timbers and Hooks fore and aft bolted, and on them are all the upper

upper Work of the Ship raised. And when a Ship hath a deep Keel, she is said in Sea-language to have a Rank Keel, the which manner of Keel keeps a Ship well from rowling ; so that when a Ship rowls too much, by reason that she is over-floty, a second Keel is sometimes put under the first ; and this is termed a false Keel.

False Keel.

Adm. What call you the second piece of Timber, in the Hull of a Ship ?

Capt. The second piece of Timber, is that which lieth right over the Keel, and it is called the Keelson ; between which Keelson and the Keel, there runneth a Rope from one end to the other, termed the Keel-rope.

The Keelson.

Adm. Wherefore serves this Keel-rope ?

The Keel-rope.

Capt. The use thereof, is to clear the Limber holes when they are choaked, that is, stopped with the ballast, or any the like thing.

Adm. Before you tell me what these Limber-holes are, let me know, what name you give to the first Plank that is fastned upon the Keel.

Capt.

The Gar-board Plank and Garboard Strake.

Capt. It is called the Gar-board Plank ; and the Gar-board Strake, is the first Seam in the Ship that is next to the Keel.

Limber-holes.

Adm. Now tell me what your Limber-holes are , and wherefore they are.

Capt. They are little square Holes, cut out in the bottom of all the Ground Timbers and Hooks, next to the Keel, and right over the Keel ; being about three or four Inches Square : And their use is to let the Water pass to the Well of the Pump, which else would rest betwixt those Timbers, into which is put the Keel-rope.

Sea-pumps.

Adm. Now you speak of Pumps, of what Kinds and Fashions are your Ship-Pumps.

Capt. They are found of three sorts, the first and the most ordinary, are altogether like those used on the Shore ; and these stand by the Main-mast.

The second sort of Pumps, are those termed Bur-pumps, which are rarely found in any of our *English* Ships, but very common with the *Dutch* ; and they have them in their Ships-sides, and

and call them Bildge Pumps ; for their Ships being built with broad flat Floors, do hereby hold much Bildge-water , that is Water, which by reason of the breadth of the Bildge, that is bottom, of their Ships Floors, cannot come to the Well in the Ships Hold : And the manner of these Pumps, is, to have a Staff, six or seven Foot long, at the end whereof is a Bar of Wood where-to the Leather is nailed ; and this serveth instead of the Box ; and so Men standing right over the Pump, thrust down the Staff ; to the midst whereof is seized a Rope, long enough for six, eight or ten Men to hale by, and so they pull it up, and draw up the Water with it ; and this kind of Pump doth deliver far more Water than the former, and is not so laborious to use.

The third kinds of Ship-Pumps, and indeed the best, are those called Chain-pumps ; for these deliver most Water, and that with most ease, and are withal the soonest mended : And these Pumps have a Chain of Burs going in a Wheel, (from whence they have their Name.)

The Pump-brake.

The Pump-can.

The Pump-vale.

Scoper-holes.

Scoper-leathers.

Name.) As for the Sea term in the using of these Pumps and all the rest them, is, the Pump sucks, that is as much as to say, the Water is all pumped out. The Appurtenances belonging to these Pumps, are ; the Pump-brake, that is, the Handle which they Pump by ; the Pump-can, that is a great Can wherewith Water is poured into the Pump, when they intend to use it ; and the Pump-vale, which is the Trough, wherein the Water that is pumped out runs along the Ship sides, and so out of the Scoper-holes ; the which Scoper-holes, are made through the sides of the Ship, close to all the Deck ; and through which the Water that is any way to be avoided out of the Ship into the Sea, passeth away : and these Scoper Holes, that are made in the lowest Deck, have round and long Leathers nailed over them, whereby the Sea-water is kept out from entring into the Ship, and yet they give way to any Water that is upon the Deck within the Ship to pass out into the Sea : And the like Leathers are also nailed over the Scoper-holes in the Manniger, and those

those short Nails with broad Heads, wherewith these Scoper-leathers, are fastned on, are termed the Scoper-nails.

Adm. Well, I pray now return to the Ground-works of your Ship again, and tell me what those are which you call the Ground-Timbers? *Scoper-Nails.*

Capt. They are those Timbers, which are laid upon the Keel, and made fast unto it with Bolts through the Keelson; and are termed Ground-timbers, because the Ship doth rest upon them when she lieth a-ground; and those Timbers which lie fore and aft (that is, before and behind) in the bottom of the Ship, just as the Rung-heads go, are termed the Sleepers; and the lowermost of them is bolted to the Rung-heads, and the uppermost to the Futtocks, and so do strengthen and bind fast the Futtocks and the Rungs; and these do line out, and describe the narrowing of the Ships-floor. *Ground-Timbers.*
Sleepers.

Adm. What be the Rungs, and the Rung-Heads?

Capt. The Rungs, are Timbers which give the Floor of the Ship, and they *Rungs.*

H

are

*Rung-heads.**Sweep.**Hooks.**Rising-timbers.**The Rake.**The Run.*

are bolted to the Keel : The Rung-heads are the ends of these Rungs, which are made somewhat compassing, and do lead and direct the Sweep, (that is the Mould) of the Futtocks ; for in the Rung-Heads, the Lines which give the Compass and bearing of the Ship do begin ; and the Hooks placed on the Keel are named Rising-Timbers, in respect that according to the Rising by degrees of these Hooks ; so the Rake (that is so much of the Ships Hull as overhangs both the ends of the Keel) and the Run (that is, that part of the Ships Hull which is under Water) rise by degrees from her Flat-floor : And those pieces of Timber which resemble a Mans Leg and Thigh, when the Knee is bowed, are called the Knees ; and they serve to bind the Beams, and the Futtocks together, being fast bolted with strong Bolts into them both.

The Beams.

Adm. What are these Beams and these Futtocks ?

Capt. The Beams are those great and main Cross-timbers, which hold the sides of the Ship from falling together,
in

in the nature of Beams in a House: and withal (as those of a House) they support the Decks and the Orlopes.

The main Beam is next to the Main-mast, and from it, the Beams are reckoned, by the distinctions, of the first, second, and third Beam; And the great Beam of all is called the Mid-ship-Beam.

The Futtocks are those compassing The Fut-
Timbers, which make the Breadth of tocks.
the Ship; and those below next the Keel, are called the ground Futtocks, the other, the upper Futtocks; and the Spaces betwixt the Futtocks, or betwixt the Rungs, by the Ships side, fore and aft, above and below are named the Spurkets. The Spur-
kets.

Adm. What are those Decks and Orlopes, that you mentioned even now.

Capt. A Deck in a Ship, is a Floor The Decks.
planked, whereon the Guns lie, and Men walk too and again; they are distinguished by the first, second, and third Deck, beginning from the lowest upward; and besides these whole
H 2 Decks,

Decks, some great Ships have a half Deck, which is that which reacheth from the Main-mast to the Stem of the Ship: And a Quarter Deck, which is from the Steerage aloft to the Masters Round House: And a Sparr Deck which is the uppermost of all, and is betwixt the Main-mast, and the Millen; and this very Deck is also termed the Or-lope: And if a Ship have three Decks, the second and lowest Deck are sometimes termed Orlopes also; only the uppermost Deck of a three Decked Ship, is never termed but the Deck.

The Orlope.

Adm. Explain the Terms you formerly used, Stem, Round house, Steerage.

The Stem.

Scarfed.

The lower Counter and Upper.

Capt. The Stem of a Ship, is that main Piece of Timber which comes bowing-wise, from the Keel below whereinto it is Scarfed (that is pieced in) right before the Fore-castle; and this Stem doth guide the Rake of the Ship; and the hollow part resembling an Arch, which is betwixt the Transom and the lower part of the Gallery, is called the lower Counter; and the upper Counter is from the Gallery to the

the lower part of the streight piece of the Stern; but that part of a Ship which is fastned to the Stem, supported with a Knee, is named the Beak, or Beak-head; and it is indeed, *The Beak-head.* the becoming Part, and the Grace of the Ship: And that Sharpness of a Ship which is underneath this Beak-Head, is termed the Cut-water, *The Cut-water.* because it cuts the Water, and so divides it e're it comes to the Bow; and that small piece of Timber set under the lower end of the Beak, having two holes in it, is named the Comb.

As for the Round-House (upon occasion formerly mentioned) it is the *The Round-house.* uppermost Room or Cabbin upon the Stern of the Ship, wherein the Master sleepeth; and the Deck or Floor over it, is called the Poop of the Ship: And the Steerage, is that *The Steerage.* part of the Ship where he standeth, who steereth (that is guideth) the Ship with the Helm; and it is always (in Ships of War) before the Bulk-head of the great Cabin, that is, the Captains Cabin, where he sleepeth and eateth.

Adm. But what distinct Part is that which you named the Fore-castle? and what is that Rake of a Ship you forementioned?

The Fore-castle.

A Bulk-head.

Cubbridge-head.

Powches.

The Prow.

Capt. The Fore-castle is that part where the Fore-Mast standeth, and it is severed and divided from the rest of the Floor by a Bulk-head (a Bulk-head being in general any Division made cross the Ship with Boards, or ought else, whereby one Room may be separated from another:) And these Bulk-heads of the Fore-castle and the Half-Decks, are sometimes termed the Cubbridge-head before, and the Cubbridge-head behind; and the small Bulk-heads made in the Hold of the Ship, upon occasion of stowing of Corn, or the like Goods, that will shoot from one side to the other, are termed Powches; and that part of the Fore-castle, which is aloft, and not in the Hold, is termed the Prow of the Ship.

Adm. Where is this Hold?

Capt. It is that part which is betwixt the Keel-son and the lower Deck; wherein by Bulk-heads, are divided

vided the Steward-Room, where the
 Victuals are stowed; the Powder-
 Room, where the Powder is be-
 stowed; the Bread-Room, for the
 Bread and Bisket; the Boat-swains
 Store-Room: and in Merchant-Ships,
 the rest of the Goods in general. And
 the Sea-words belonging to this Part,
 are, to Rummage the Hold, that is,
 to look what is within it; to clear the
 Hold, that is, to lay the Part hand-
 some; and to stow Goods in the Hold,
 that is, to put them handsomly and
 conveniently into the Hold.

*The Hold,
 Steward-
 Room, Pow-
 der-Room
 Bread-
 Room, &c.*

Adm. What is the Rake of a Ship? *The Rake.*

Capt. It is so much of her Hull, or main
 Body as doth overhang both the Ends
 of her Keel, and that part of it which
 is before, is termed her Rake forward
 on; and that part which is at the set-
 ting on of her Stern-Post, is named the
 Rake afterward on: And when a Ship
 hath but a small Rake forward on, and
 so that she is built with her Stem too
 streight up, she is called Bluff-headed.

*Bluff-head-
 ed.*

Adm. Which is the Stern of a Ship? *The Stern.*

Capt. All the aftermost, that is, the
 hindermost part of a Ship, is by a ge-

The Transome piece.

The Buttock.

neral Appellation received for her Stern; but strictly taken, it is only the outmost Part abaft that is behind: And that main Timber piece which lyeth thwart, that is, cross the Stern, and so layeth out the breadth of the Ship, at the Buttock, is named the Transom Peece, and this is directly under the Gun-room Port; so that this Buttock is indeed nothing else but the breadth of a Ship, right a-Stern from the Tuck upwards; and therefore as a Ship is built broad or narrow at her Transom, so she is said to have a broad or a narrow Buttock.

The Tack.

Fat Quarter.

Adm. What mean you by the Tuck? *Capt.* It is a Ship or Sea-word, signifying the trussing or gathering up of the Ships Quarter under water; the which Trussing, if it lye deep in the Water, it causeth the Ship to have a broad (which is called a Fat) Quarter, and withal, it hinders her Steerage, by reason that it keeps the Water from passing swiftly to her Rudder: If this Trussing lye over high above the Water, the Ship will want

want bearing for her Works behind, unless withal, the Quarter be well layed out.

Adm. By this I apprehend, that *The Quar-*
what you call the Quarter, is that part *ter.*
of the Ships Hull or main Body which
lyeth from the Steerage-room to the
Transom.

Capt. Your Lordship apprehends
truly.

Adm. But why should the slow *The Rudder.*
Passage of the Water to the Rudder
of a Ship, hinder her Steerage?

Capt. Every man knows (my Lord)
that the Rudder of a Ship (being that
piece of Timber which is hanged on
the Stern-posts, by four, five, and some-
times six Iron Hooks, called Pintles; *The Pintles.*
for which, are fitted certain other I-
rons named Gudgeons) is (as one *The Gudge-*
may say) the very Bridle or Rains of a *ons.*
Ship; whereby she is turned and ma-
naged at the Pleasure of him that
stands at the Helm. The which *The Helm.*
Helm is put into the Rudder, and by
a Staff (called the Whip) which the *The Whip.*
Steers-man holds in his hand, the
Ship is thus governed and directed.

Now

Now the narrower the Rudder is, the better is it for a Ships sailing, provided that the Ship will feel (that is, be governed and guided) by that Rudder: for by this narrowness, she cutteth or passeth through the less Water, and the better and sooner will the Ship feel her Rudder, if in her sailing the Water pass swiftly unto it. And hence is it, that a Ship having a Fat-Quarter (as before said) the Water passeth hereby but dully unto her Rudder, whereby her Steerage is hindered.

And the Words of Sea-Art belonging to Steerage, are, 1. Port the Helm, that is in (the Conding, which is directing of the Steers-man how to govern the Ship) put the Helm on the left hand or side of the Ship. 2. Starboard the Helm, that is, put the Helm on the right side of the Ship. And it is to be observed, that in Conding, it is not used to bid the Helms-man Larboard the Helm, though that be all one with port the Helm; because (as I conceive) the Words Starboard and Larboard being somewhat of a near Sound, in case of hast, the one might be

*Port the
Helm.*

Conding.

Starboard.

Larboard.

be mistaken for the other, either by the Speaker or Hearer, to the much Danger of all in general. The 3. word of Art in this case is, Right the Helm, *i. e.* keep it even with the middle of the Ship. 4. Bear up the Helm, *i. e.* let the Ship go more at large before the Wind. And lastly, Bear up round, *i. e.* let the Ship go between her two Sheets, directly before the Wind.

Right the Helm.

Bear up the Helm.

Bear up round.

Adm. You mentioned even now the Word Bearing a Ship in another Sence than at the present, or else I am mistaken.

Capt. This Word (my Lord) is indeed among Sea-men variously used. For when a Ship doth carry Ordnance or great Guns, she is said to bear her Ordnance; when a Ship sails upright in the Water, having her Sails abroad in a Gale of Wind, she is said to bear a good Sail; when a Ship sails towards the Shore, she is said to bear in with the Land; when a Ship that was to the Windwards, cometh under another Ships Stern, and so gives her the Wind, she is said to bear under

To bear.

under her Lee ; when a Ship sails into a Harbour before the Wind, or with the Wind large, she is said to bear in with the Harbour ; and on the contrary, when a Ship keepeth off from any Land, she is said to bear off from it ; when a Sea-man will tell you how one Cape or Place lyeth from another, he saith it beareth off so. In Hoising, *i. e.* pulling up of any thing a Ship-board, if it catch hold of ought by the way, the Sea-pharse is, Bear it off ; and to bear up, and bear up round, are Words used in Conding, as I told you even now. But by a Ships bearing, in the Sence that you enquire after, is meant, that a Ship having too slender or lean a Quarter, will sink or swim over deep into the Water, with an over light Freight, that is, Burthen, and hereby cannot stow or carry but a small quantity of Goods, the which, from hence is termed her Burthen, so that (generally) a Ship is said to be of so many Tuns of Burthen, when she will stow or carry so much in quantity of Goods ; and by the Bulk of a Ship, is meant her

*Hoising.**Freight.**Burthen.**The Bulk.*

her whole content in her Hold, into which those Goods are hoysed (that is, let in) through the Hatches.

Adm. What, and where are these Hatches?

Capt. They are those loose Parts, *The Hatches.* and as it were Doors of the Decks which are in the mid-ship, or middle part of the Ship, betwixt the Main-Mast and the Fore-Mast, and which are opened at the letting down of any Goods of bulk into the Hold; and when these Hatches are raised up higher than the rest of the Deck, those pieces of Timber or Planks which raise and bear them up, are named the Coamings of the Hatches: In which *The Coamings of the Hatches.* Coamings, Loop-holes for Musquets to shoot out at, are usually made. *The Loop-holes.*

Adm. Where lies that part of the Ship you named the Bow?

Capt. It begins at the Loof and *The Bow.* compassing ends of the Stem, and ends at the Stern-most End of the Fore-Castle. And here a bold Bow is a broad Bow, a lean Bow, is a narrow thin Bow, and the Bow-piece of Ordnance, is that which lies in this Bow.

Adm.

Adm. Which is the Loof of a Ship?

The Loof.

The Chels-trees.

Capt. The Loof is counted that part aloft, which lies just before the Chels-trees (which Chels-trees, are two small pieces of Timber with a hole in them; the one on the one side of the Ship, the other on the other) and therefore those Guns which lye there, are named the Loof-Pieces.

To Loof up.

To spring the Loof.

But this Word Loof, is also a Term in Conding of the Ship: And so Loof up, is to have the Steers-man to keep neerer to the Wind. To Loof into a Harbour, is to Sail into a Harbour close by the Wind. And to spring the Loof, is, when a Ship that was going large before the Wind is brought close, or as the Phrase is, doth clap close by the Wind: And if a Ship sails by a Wind or quarter Winds, the ordinary Words of Conding or Direction to the Steers-man are Aloof, or keep your Loof, or fall not off, or Veer no more, or keep her too, or touch the Wind, or have a care of the Lee-latch; all which Words of

the Parts of a Ship.

III

of Command imply much about one and the same thing, and are to bid him at the Helm to keep the Ship near the Wind: As on the contrary, the Phrases, *ease the Helm*, no *Ease the Helm.* near: *No near.* Bear up, are to have the Ship to go more large or Right before the Wind. Some words there are common to both these; as the Word *Steady.* Steddy, which is to keep the Ship from going in or out, that is in the Sea-phrase, from making a Yaws.

Adm. Let us return again to the Body of our Ship. What are those Timbers called the Carlings?

Capt. They are those which lye a- *carlings.* long the Ship, from one Beam to another, and they serve, not only to strengthen the Ship, but upon them also those Ledges do rest, on which the Planks of the Deck are made fast, and all these Carlings have their Ends let into the Beams, which is termed *Culver-tail.* But the Carling *Culver-tail* Knees, are those Timbers which do pass thwart the Ship, from her sides to the Hatch-way, and they are laid betwixt the two Masts: And the Hatch

Hatch-way. Hatch-way, is that Place which is directly perpendicular over the Hatches; so that to stand or lay any thing in the Hatch-way, is to lay it so, as that the Hatches cannot be come unto, nor be opened.

Adm. what call you the Catt of a Ship?

The catt. *Capt.* It is a large piece of Timber fastned aloft over the Hawse, having at the one end thereof two Shivers, wherein is reeved (that is, put thorow) a Rope with a Block (which is a piece of Wood with Shivers in it) and unto it is made fast a great Hook of Iron: And the use hereof is, to trise up the Anchor from the Hawse to the top of the Fore-castle, where there is fastned a Stopper at the Anchor (which Stopper is a piece of Rope spliced into it) which serves to hitch the Hook into the Ring of the Anchor; and thus much for the Catt itself. But those Holes which are called the Catt-holes in a Ship, are above the Gun-room Port, a Stern; and thorow them, when cause requireth, the Ship is heaved a Stern; by a Stern-

Stern-Faß.

Adm. To understand this Passage more fully, you are to explain, what the Hawse, Shivers and Capstan, are.

Of the Cap-
stan and
its parts.

ed to one end of the Beams of the Deck, close unto the Body of the Capstan, but yet so, as that it hath liberty to turn about every way, and against it, the Whelps of the Capstan do so bear, that the Capstan may be stopped from turning or reversing: And this Stoppage is termed Pawling of the Capstan. Now the main use of this Capstan, is to weigh the Anchors, to hoise or strike down the Top-masts, to heave into the Ship any ponderous thing, or to strain any Rope that requireth a main force.

The other Capstan is called the Jeer-capstan, and is placed in the same manner, betwixt the Main-mast and the Fore-mast; and the use of this, is to heave upon the Jeer-rope (of which more shall be said, when we shall mention Ropes in general.) Or to hold off by, when the Anchor is in weighing; and at the Foot of this Jeer-capstan, are likewise fitted certain Whelps, but lesser than the first, which serve to heave upon the Viol (of which also, more shall be said when we come to speak of Ropes.)

Now

Now the Words of Art belonging to this Work, are, Come up Capstan, *come up Capstan.* *id est*, flake the Cable that they heave by; and in the very same sence, is launce out the Capstan, Pawl the Capstan, *Launce out Capstan.* *i. e.* stop it so with the Pawl that it reverse not. *Pawl the Capstan.* As for that called the Step, *The Step.* whereinto the Foot of these Capstans are set, it is that piece of Timber wherein the foot of any other piece of Timber standing upright is fixed into; as the Masts and the like.

Adm. Well, what are your Shivers now?

Capt. Of these there are two sorts, the one of Brass, the other of Wood: *The Shivers.* The brazen ones are only in use in the Heels of the Top-masts (of which Heels more shall be mentioned, when the Masts are mentioned.) The wooden Shivers, are either of one whole piece of Wood, and used then in small Pulleys or small Blocks only; or are made of Quarters of Wood, let each into other, and used in the Knights and Winding-tackles Blocks. And into these wooden Shivers are

I 2 put

put little square things of brass with a holes in them, to keep the Shivers from splitting and galling by the Pin of the Block, and they are called the

The cocks. Cocks.

Adm. What be these Knights, and what are the Winding-Tackle-Blocks?

The Knights *Capt.* Of the Knights there are two, the Main-knight and the Fore-knight; and they are pieces of Timber where go four Shivers, three for the Halliards, and one for the Top-ropes (of both which we shall speak hereafter.) And they are commonly shaped to the form and likeness of some Head: The one Knight standeth aft the Main-mast, and the other abaft the Fore-mast upon the second Deck: The *The winding-tackle Blocks.* Winding-Tackles Blocks, are main double Blocks, with three Shivers in each of them, and are fast seized to the end of a small Cable, which is brought about the head of the Mast.

Adm. Which are the Hawses?

The Hawses. *Capt.* They are two round Holes in the Ship, before, under the Head
or

or Beak, through which the Cables pass when the Ship is at an Anchor: And the Words of Art belonging to these Hawse, are, a bold Hawse, which is when the Hole is lofty above the Water, the which is very commendable. A fresh Hawse, and this is when there is a Suspicion that the Cable is fretted in these Holes. Fresking the Hawse, and that is, when new pieces are laid upon the Cable in the Hawse. Burning in the Hawse, and that is, when the Cable doth endure an extraordinary Stress: Clearing the Hawse, and that is, when two Cables, which are let out at the two Hawses, and thorow the wending of *winding.* the Ship (that is, the turning about of the Ship, being at an Anchor) these Cables have gotten some windings one about another; the unwinding of them, is termed the clearing of the Hawse: Riding upon the Hawse, and this is when any weighty Substance falls across afore the Hawse, or lies athwart the Hawse, or when one Ship rides with her Stern just before the others

I 3

thers Hawse, and is near unto it.

Adm. What is that in a Ship, which is termed the Davit?

The Davit,

The Fish-Block.

Capt. It is a peice of Timber in which, by a Notch at the one end, is hung a Block, by a Strap, and this Block is called the Fish-block, by which is haled up the Flouk of the Anchor, to fasten it to the Ships Bow or Loof: And this Davit, may be shifted to either Side of the Ship, as occasion shall require. The Ships Boat also, hath a small Davit set over the Head thereof with a Shiver therein, into which is brought the Boy-rope, wherewith to wey the Anchor; and it is made fast in the Carlings, in the Botes Bow.

Adm. But what Block was that which you named the Fish-Block?

Capt. It is the peculiar Block belonging to the Fish, and thence takes it Name.

Adm. What is this Fish?

Fish..

Capt. The word Fish (when it is a Ship-word) is taken in a double sence: In this Place, it is a Tackle hung out at the end of the Davit, by the Strap
of

of the Block; in which Block is a Runner with a Hook at the end called the *Fish-hook.* Fish-hook; the which serves to Hitch (as afore said) the Flouk of the Anchor; and so Haling by the Falls (of which Falls more shall be expressed when we come to Ropes and Tackles) the Flouk of the Anchor is raised to the Bow, or Chain-wale of the Ship. In the second Place, this word Fish, is given to any Piece of Timber or Planck, made fast either to the Mast or Yard, to succour or strengthen it, when it is doubted to be too weak for the work it hath to do; and this Action, is termed the Fishing of the Mast or Yard, and is performed first *Fishing of the Mast.* by hollowing it, for the place it is to be applied, and then nailing it on with Spikes, and woulding it, that is, wrapping it hard round about with Ropes. *Woulding.*

Adm. Where is that you call the Chain-wale, and where is it?

Capt. Wales and Benches in a Ship, *chain-wales.* are all one: And they are those Timbers on the Ships-side, which lye outmost, and are usually trod upon when

people clamber up the sides to get into the Ship; and they are distinguished, by the first, second and third Bend or Wale; beginning from the water upwards: And the Chain-wales, are farther and more eminently layed out in the Sides of the Ship, than any of the other Wales are; and they serve to spread out the Shrowds (of which more when we come to speak of Ropes) that so the Shrowds may the better succour, that is, hold up the Masts, and these are called the Chain-Wales, because the Shrowds are made fast unto them by Chains.

Adm. What are the Bits in a Ship?

The Bits.

Capt. They are those two main Pieces of Timber, which stand Pillar-wise abaft the Manger in the Loof of the Ship, and serve to belay (that is to fasten) the Cable when the Ship Rides at an Anchor; and the main Timber layed a Cross here is termed the Cross Piece, and to it is belayed the Cable.

The Cross-piece.

The Manger.

Capt. It is a Place made with Plancks, fastned upon the Deck right under the Hawses, being about one Foot, and

and a half in height; and the use thereof is to catch and receive the Seawater, that any way beats in at the Hawes, when the Ship Rides at an Anchor, in a great stress of Weather.

Adm. What other Blocks have you belonging to a Ship besides the fore-mentioned?

Capt. The Blocks belonging to Ships *The Blocks.* are (as afore-said) those Pieces of Wood, which have Shivers in them, wherein go the Running Ropes; and of these Blocks some are single, some double, and some of them, have three four, and five Shivers in them; and they are distinguished by the Names of the Ropes whereto they serve, of which we shall have fitter occasion to speak farther, when we treat of the general Tackling belonging to a Ship.

Adm. What is that, which is called the Bittacle?

Capt. It is that Frame of Timber that *The Bittacle.* standeth in the Steerage, just before him that Steereth; and it is the destined Place for the receipt of the Compass, by which the Ship is Steered in her Course.

Adm.

*The Com-
pass and
its parts.*

Adm. Describe this Compass.

Capt. It is a moveable Instrument, with a Fly; which Fly is that part of the Compass whereon the 32 Points or Winds are described; by which Points, all Sea-Courses are directed; and of these Compasses there are three kinds; the Meridional Compass, which is the most Common one; the Compass of Variation, which sheweth how much the Common Compass doth vary from the exact Point of *North* and *South*; and the Dark Compass, which is best to Steer withal by Candle-light, because the Fly thereof hath the Points described without any other Colours than white and Black: And the needle is that Iron Wire which is touched with the Load-stone.

Adm. You have many times made mention of Bolts and Bolting, tell me now what they are?

The Bolts.

Capt. They are Iron Pins, of which there are these several sorts; Ring Bolts, which serve for the bringing to of the Plancks, and those parts whereto are fastned the Breeches and Tackles of the Ordnance; of which we shall speak

Speak more, and more fitly, when we come to make mention of the Great Guns belonging to Ships and their Appurtenances: Drive-bolts, and these are used to drive out other Bolts: Set bolts which are employed for the forcing of the Plancks and the others works, and bringing of them close one unto another: Rag-bolts, which are on each side full of Jaggs or Barbs, to keep them from flying out of the holes wherein they are driven: Clench-bolts, the which for the same end, are clenched, that is made fast at the ends where they come through: Fore bolts, which are made like Locks, with an Eye, at each end whereinto a fore-lock of Iron is driven to prevent starting out: And lastly, Fender-bolts, made with long and thick heads, and are struck into the outermost Bends or Wales of a Ship to save her Sides from bruises and hurts; and thence take their Name.

Adm. Which is that you call the *The Gallery.* Gallery in a Ship?

Capt. It is a generally known Part, and is that beautifying Frame, which
is

is made upon the Stern of a Ship without Board, whereto there is a Passage out of the Captains Sleeping Room, which is called the Great Cabbin; And these Galleries are indeed rather for stately shew and the Captains pleasure, then any other benefit or behoof: For in Ships of War, all open Galleries of this kind, are discommendable rather, and to be avoided, in regard of the facility of an Enemies entrance and boarding of the Ship, that way. And those small Pieces of wood, which in the Nature of knees are used to support these Galleries, as also the Heads of Ships are termed Brackets.

The Brackets.

Adm. What are those you call Clamps?

The clamps.

Capt. They are those thick Timbers, which lye fore and aft, under the Beams of the first Orlope, and do bear them up at either end; and are the same that the Risings are to the Deck.

Adm. Which are these Risings?

The Risings.

Capt. Those thick Plancks, they are, which go fore and aft, on both sides under the ends of the Beams and Timbers

Timbers of the second Deck unto the third Deck, half Deck, and Quarter-Deck; and on them the Beams and Timbers of the Deck do bear at both ends by the Ships side.

Adm. Where is the Cook-room in a Ship? for what it is the name expresseth. *The Cook's room.*

Capt. This Cook-room is variously seated in Ships: In some, and generally in great Ships, it is in the Fore-castle, and it is in this part most tolerable, when in it there are found Furnaces: In some other Ships, it is seated in the Hatch-way upon the first Orlope; and for Ships of War (which are termed Men of War) it is most properly there, in regard of danger by Fire, and the freer use of the Guns, that lye in the Fore castle; especially if this Cook-room (as some conceive) may be contrived to be movable, and so in a Fight, be struck down into the Hold of the Ship: But for mine own part I cannot apprehend, how it can be otherwise placed, than in the Fore-castle, in great Ships, by reason of the Multitude of Men, which require necessarily the dressing of much Meat, and as necessarily

rily a large and private Room to dress it in.

Adm. Where are your Ship-Ladders placed, and how made?

The Ship-ladders.

Capt. Of these there are two kinds, and they are employed in two several and distinct Places; the one sort are generally used in Harbours, and in fair weather abroad at Sea, and hath entering Ropes, hanging at them; and this kind of Ladder is made of Wood. The other kind is made of Ropes Ladderwise, and are hung over the Galleries and Stern of Ships, and are to enter by the Stern of the Ship, out of the Boat, when the Weather is foul, and the Sea high.

Adm. What, and where, are those you call the Fashion-pieces?

The Fashion-pieces.

Capt. They are those two Timbers, which describe the Breadth of the Ship at the Stern, and are the outermost Timbers of the Stern, and on each side thereof, excepting aloft, where the Counter (as aforesaid) is counted.

Adm. Which is that part of a Ship, which may properly be stiled her Floor?

Capt.

Capt. This Floor strictly taken, is *The Floor.*
so much only of her Bottom, as she
doth rest upon, when she lieth on
Ground; And therefore those Ships,
that have long, and withal, broad Floors,
lie on Ground with most security, and
are not apt to feel, (that is to fall on
the one side) whereas the other,
which are cranck by the Ground (as *cranck by*
the Sea Phrase is) that is narrow in *Ground.*
the Floor, cannot be grounded without
Peril, either of being overthrown, or
at the least of wringing her sides: And
note that the word Overthrown, is
used when a Ship is brought to be
trimmed a-ground, and so by some
mischance doth fall over on her side;
but when a Ship at Sea is turned over
on the one side, she is said to be over-
set.

Adm. What is the Furring of a
Ship?

Capt. Of this Furring (my Lord) *Furring.*
there are two sorts; the one is af-
ter a Ship is built; which is done by
the laying on of doubling Plancks on
the sides of her; and these are called (in
the Sea Phrase) Planck upon Planck:
The

The other way (which indeed is most properly Furring) is performed by ripping of the Plancks, and putting other Timbers upon the first Timbers, and upon them other Plancks; and this is done to make a Ship bear the better Sail.

Adm. What are Gratings in a Ship?

Gratings. *Capt.* They are small Ledges of sawed Planck layed cross one into another, like a Port-cullice or the Grate of a Prison Window or Door: And those are properly so termed which lie betwixt the Main-mast, and Fore-mast, and serve to good defence in a close Fight; as also for the ease and coolness of the Ships Company, in great heat of weather: and having a *Tarpawling* (that is a piece of Canvas all tarred) layed over them, they keep off Rains also: And the difference betwixt these and *Nettings* is, that the *Nettings* are made with small Ropes, seized together with Rope-yarn, in the form of a Net; and for the most part are only layed in the *Wafts* of Ships (which is the part betwixt the two Masts)

*Tarpaw-
ling.*

Nettings.

Waft.

Masts) but these are nothing so convenient as the Gratings, in regard that in a Fight, they may be soon cut in pieces.

Adm. What is that which is the Gripe of a Ship ?

Capt. It is the Compass, and withal, *The Gripe.* the sharpness of the Stem under Water ; and particularly towards the lower end of the Stem :. And the use hereof is, to make a Ship keep a good Wind ; and in this regard, by way of farther help this way, there is sometimes put a false Stem to the true Stem, thereby to make her Gripe the more. But besides this, the word Gripe, as it is a Sea word, expresseth as much, as that a Ship contrary and in spight of the Helm, is apt to run her Head or Nose into the Wind, more then she should ; and of this Griping, there are commonly two Causes : The one, when a Ship is over deeply loaden a Head ; for then by reason of the weight which presseth her down, in that part, her Head is not apt to fall off from the Wind : The other cause may be, the staying (that is the setting or fastening) of the Masts of a Ship : for a

K

short

a short Ship, drawing much VWater, if her Mafts be stayed too much aftward on, it will cause her head to be ever running into the VVind : And all Floaty Ships, are to stay all their Mafts aftward on very far, or else those Ships, can never keep a good VVind.

Adm. You spake even now, of the Grounding of a Ship; let me understand what the meaning of it is.

Capt. It is nothing else, but the bringing of a Ship on Ground to be trimmed; that is, to be made clean, or to have some Leak stopped or the like.

Adm. You speak before of VVales in general, and of the Chain-wale in particular; but what is that which is called the Gun-wale?

Capt. It is that piece of Timber which reaches on either side of the Ship, from the half Deck to the Fore-castle, being the uppermost Bend, which finisheth the upper VVorks of the Hull in that part; and wherein they put the Stanchions which support the Wast-trees; and this is called the Gun-wale, whe-

*Grounding
a Ship.*

*The Gun-
wale.*

*The Wast-
trees.*

whether there be Guns in the Ship or no : But the lower part of any Port, where any Ordnance are, is also termed the Gun-wale: And those I called Wast-trees, are those Pieces of Timber which lie in the Wast of a Ship ; and the Stanchions, are those, the which *The Stanchions.* Pillarwise, support and strengthen the Wast-trees.

Adm. What part of a Ship is that which is termed the Harpings ?

Capt. It is most properly taken for *The Harpings.* the breadth of a Ship, at her Bow, although some will have the ends of the Bends, where they are fastned into the Ships Stem, to be also called the Harpings.

Adm. What are those you call Hooks in Sea-language ?

Capt. The Hooks of a Ship, are all those forked Timbers which are placed, directly upon the Keel, as well in the Rake, as the Run of the Ship: And the compassing Timbers which are before, and help to fortifie and strengthen the Ships-Stem, and all her Fore-part are called Brest-Hooks: *The Brest-hooks.*

Adm. VVhat mean you, when you say, a Ship is Housed in?

Housed in.

Capt. It is, when after a Ship is past the breadth of her Bearing, she is brought in too narrow to her upper works; and this is also called Pinched in, as well as Housed in.

Adm. VVhat are those, called the Kenells?

The Kenells.

Capt. They are small Pieces of Timber, nailed to the inside of the Ship, unto which are belayed (that is fastned) the Sheats and Tacks; of which Sheats and Tacks, more shall be said when the Ropes and Tacklings of a Ship come to be described

Adm. VVhat be the Ledges?

The Ledges.

Capt. They are those small Pieces of Timber, which come thwart Ships, from the VVast-trees to the Roof-trees; and they serve to bear up the Nettings.

Adm. VVhat are these Roof-trees?

The Roof-trees.

Capt. These Roof-trees, or, as they are vulgarly called, Ruff-trees; are those Timbers which go from the Half-deck to the Fore-castle, and serve to bear up the Gratings, and Ledges where the Net-

Nettings are fastned ; and they are supported by Stanchions : and that Piece of Timber is also called a Ruff-tree that is used (upon occasion) to be layed over the Half-deck, for Nettings, or any Sails or Pieces of Canvas to be layed upon it.

Adm. VVhat meaning have you, when you say a Ship is VVale-reared ?

Capt. I told your Lordship even now, that when a Ship is pinched in, and too narrow in her Upper-work, it is termed Housing in ; but (on the contrary) when a Ship is built streight up, after she comes to her bearing, she is said to be VVale-reared ; the which ^{Wale-reared.} though it be unsightly, and as the Seamen term it, not Ship-shapen ; yet it causeth a Ship to be much Roomer ^{Roomer.} (that is larger) within Board (that is within the Ship) and withal makes her a Holsom Ship in the Sea , especially if her bearing, be well layed out.

Adm. VVhat mean you by Holsome in the Sea ?

Capt. In Ship-pharse , a Ship is said ^{Holsom in the Sea.} to be Holsom at Sea , when she will

Hull, Try, and Ride well, without Roulung, or Labouring in the Sea.

Adm. VVhat Hulling was, you told me before ; but what mean you here, by Trying, Riding well, and labouring in the Sea ?

Trying.

*Rydings.
and La-
bouring in
the Sea.*

Capt. A Ship is said to try, when she hath no more Sails abroad, but her Main sail ; the Tacks close aboard ; the bowlings set up ; the Sheats close aft ; and the Helm tied down close to the Board (of all which Phrases, we shall make Explanation hereafter, when we come to treat of Sails and Ropes) and so to let her lie in the Sea : And when it blows so much Wind, as they cannot maintain (that is bear out) the Main-sail ; then they will make her Try, with the Miffen-sail only.

Shear.

A Ship is said to Ride, when her Anchors hold her so fast, as that she drives not away with the Tide or Wind ; for though she must needs shear (that is wave too and again) from one side to the other ; yet if her Anchors hold fast, and come not home (as the Sea-word is) she is said to Ride: Now to Ride well, is not only when
the

the Ship is made fast by her Anchors, in a good Rode (that is in a Place ^{Rode.} where neither the Sea, nor Wind hath much power over the Ship) and when she doth not strain (that is stretch) her Cables over hard : But also a Ship is said to ride well, when she is so built, as that in Riding, she doth not so over-beat her self into a Head-sea, as that the Waves over-take her (that is wash ^{Over-take.} her) from Stem to Stern : And a Ship doth ride at most ease, and in most security, when she hath two Cables spliced together (and this is termed a shot and to ride by a shot) and the ^{A shot, and to ride by a shot.} reason hereof is, that the length of the shot, doth allow her more Liberty to play and rise upon the Sea than otherwise she could have, if she Rode with single Cables ; and besides the shot, by reason of its length, is so weighty, as that the Ship cannot much strain it : As for the Sea-phrases used in a Ships Riding, they are these : To Ride a-^{To ride a-}cross, that is, to ride with the Main-^{cross.}yards and Fore-yards hoisted up to the Hownds, and both Yards and Arms topped alike : To Ride a Peek ; ^{To ride a} and ^{Peek.}

*To ride
Hawsefull.*

*To ride
a-thwart.*

*To ride be-
twixt
Wind and
Tide.*

*To ride
Wind-rode.*

*To ride
Portise.*

and that is to Ride with the one end of the Yards peeked up, and the other end hanging down: although it is true also, that when the Ship in weighing of her Anchor, is brought directly over the Anchor, it is termed Riding a Peek: To Ride Hawsefull, is when the Ship in a stress of Weather, falls so deep into the Sea, with her head, that the Water breaks into her Hawses: To Ride a-thwart, is to Ride with the Ships Side upon the Tide: To Ride betwixt Wind and Tide, is, when the Wind hath equal force over her, one way, and the Tide the other way: To Ride Wind-rode, is when the Wind hath more power over her in her Riding than the Tide hath: To Ride Portise, is, when the Yards are struck upon the Deck. And all these are Sea-terms, belonging to the Fashions and several ways of a Ships Riding at an Anchor: The which your Lordship shall find farther and more perspicuously explained, when we come to speak at large, of Anchors, Sayls, Masts, Yards, and their Appurtenances.

And

And as for the phrase, of Labouring in the Sea, it is no more, then to say, (in foul and Stormy weather, when the Sea goeth high) that a Ship doth roul, tumble, and is very unsteady.

Adm. You have spoken fully to this Phrase of Riding; but what are those you call the Riders in a Ship?

Capt. They are these great Timbers, *The Riders.* some in the Hold, others aloft, which are bolted on upon the other Timbers, to fortifie and strengthen them when it is found that the Ship is but weakly builded: the which howsoever they are of necessary use this way, yet do they always straiten the Hold of the Ship, so that it cannot contain much stowage of Goods.

Adm. What call you Lockers, and where are they found in a Ship?

Capt. They are in the Nature of Boxes, and made by the Ship Sides; and when they are placed by the Guns, they are employed for the most part, to put the shot into them, that are to be used for those Guns; although (it is well observed) that in a fight, it is dangerous

The Quoyle.

dangerous to lodge the shot in that fashion, lest an Enemies shot should fall among them, and produce a great deal of Spoil ; and therefore it is rather held fit that these shot, should lye in the Quoyle (that is Ring) of some Cable or great Hawser ; the which being close upon the Deck cannot procure the like mischief.

Adm. What call you the Out-licker ?

The Out-licker.

Capt. It is not much used in great Ships, or Men of War, and whensoever it is used, it is by reason that the Miffen-Mast is placed so far aft, that there is not room enough within Board to hale down the Sheat flat ; and therefore they use this, without Board : Now it is a small piece of Timber, 3. or. 4. Yards long (as occasion requires) made fast to the Top of the Poop, and so stands right out a-stern, at the outwardmost end whereof, there is a Hole, into which the standing part of the Sheat, is reeved and made fast, thorough the Block of the Sheat ; and then again reeved through an other Block, which is seized to this piece of

of Timber, hardby the end thereof.

Adm. How is this Term, Man of ^{Man of} War, taken in your Sea Language? _{War.}

Capt. It is taken, my Lord, for a Ship of War.

Adm. What requirable parts are there in a Ship of War more than in other Ships?

Capt. This will require a Dialogue by it self, and (if it please you) shall be reserved until then.

Adm. Let it be so; and go on with the parts of a Ships Hull for the present; and in particular tell me, what are those parts you term the Partners?

Capt. They are those bolted to the Beams, which do compass and shut in the Masts at the Deck; and are indeed the strength that keep up the Mast steady in the Step; and also keep it, from rowling, (that is falling) over the Ships Sides. There are also of these Partners at the second Deck, to the same end; only the Mizen-Mast, hath only one pair of Partners, in which that Mast is wedged so firm, as that it cannot by any means budge;
True

true it is that some Ships Sail not well, unless their Mast be loose, and have leave to play (as the Sea-term is) in the Partners, but in a Storm, this is very dangerous, for fear of wronging (that is forcing) of the Partners; the which if they should give way, there were no other remedy but to cut the Mast by the Board.

Adm. Which call you the Pillow?

The Pillow. *Capt.* It is that Timber whereon the Bolt-spright beareth and resteth upon, at its coming out of the Hull of the Ship aloft, close by the Stem; and it is called the Pillow of the Bolt-spright; of which Bolt-spright, we shall speak, when we speak of Masts in general.

Adm. What be the Ports in a Ship?

The Ports. *Capt.* This word Port, when used in Conding of a Ship (as I formerly touched) is in use, when the Ship Sails right before a Wind, or if the Weather Sheat be aft, as far as the Bulk-head, and then the Conder saith, steddly a Port, that is, put the Helm to the Larboard; A Ship also is said to heel a Port, when she inclineth to the left

left hand, and swims not upright; and to bring any thing a Port, is to carry it to the left side of the Ship. But the word Port in a Ship, as here, signifies those square Holes in a Ship, thorough which her great Guns are thrust out.

Adm. What, and which are the Ranges?

Capt. Of These there are Two; the ^{The} one is aloft upon the Fore-Castle, a ^{Ranges.} little abaft the Fore-Mast; the other in the Beak-head, before the Wouldings of the Bolt-sprit: That in the Fore-Castle, is a small piece of Timber, which goeth over from one side to the other, and is fastned there to the Timbers, and hath two knees about the middle, on either side of the Fore-Mast, fastned to the Deck, and the Timber, in which run the Top-sail Sheats in a shiver, and it hath divers Wooden Pins thorough it, to belay the Ropes thereunto: As for the other in the Beak-head, it is in the same form with the former, and as the former hath the fore-tacks, the Fore Top-sail Sheats, the Fore-bowling, and the Fore-

Fore-loof-hook belayed unto it; so this hath the Sprit-sail, and the Ropes belonging unto it, and also the Sprit-sail Top-sail; of all which more fully when we come to Ropes and Sails.

Adm. What are those, that are termed Ribbs?

Toe Ribbs.

Capt. By the resemblance, that the Timbers of the Futtocks (when the Planks are off) carry to the Ribbs of a dead Carcass, those Timbers in general, are called the Ribbs of the Ship, though particularly they have also other Names; so that if two Ships by lying aboard one another in a Sea-Gate (that is a Billow, or wave) have thereby any of those Timbers broken, the Sea-word is, that she hath some of her Ribbs broken: And those little long Wooden Pieces, which are made with holes like the Comb under the Beak-head, and do belong to the Parrels of the Yards, are called the Ribbs of the Parrels; of which Parrells more hereafter.

Sea-Gate.

Adm. What are Scuttles in Ships?

The Scuttles.

Capt. They are square holes, capable for the Body of a Man to pass thorough

thorough, at any Hatch, way, or part of the Deck, into any Room below: And they are generally in these Places; before the Main-Mast, before the knight in the Fore-Castle; in the Gun-room, to go down to the Stern-sheats; in the Masters Roundhouse, to go down into the Captains Cabin when they are forced from the Fight aloft, and generally in any other place, where there is to be a thorough passage from one Deck to another. And besides these greater Scuttles, there are other small ones, with gratings, which are over the Ordnance, and serve to give vent to the Smoak of the Ordnance, in a Hot Fight: Those little Windows and long Holes which are cut out in Cabbins, to let in light, are also called Scuttles, and these Scuttles, I mean the great ones, have covers fitted for them, lest People should at unawares fall into them in the night time.

Adm. What mean you by the Sea-word, settle a Deck?

Capt. When occasion requires to *Settle a Deck.* lay a Deck lower then it was at the Mast, it is termed settling of the Deck; as

as in many Cases it may fall out, and then it is easier to settle the lowermost, then to raise the uppermost; only Care is to be had, that by this settling of the Deck, the Guns which lye upon that Deck, be not brought too near the Water, which is a main fault in many Men of War.

Adm. What is the Sheathing of a Ship?

*Sheathing
a Ship*

Capt. It is as it were a Casing of Her; and this may be done, more ways then one; but the surest known to us, and in use with us; (as I conceive) is when it is done with thin Boards, having Hair and Tar layed betwixt the Casing; that is, betwixt the old sides, and these new thin Boards: And this Sheathing is in that part of the Ship which swims under Water; and the use thereof is to keep the Worms from Eating thorough the Planks; as generally in all places to the *Southward* they are found to do.

Adm. What is that, which is named the Skegg?

The Skegg.

Capt. It is that small and slender part of the Keel, which is cut flenting,
and

and left a little without the Stern-post ; but these Skeggs are not much used at the present ; for first they are apt to snap off, and so may also endanger the Stern-post it self. Secondly, they have been found in a River or Harbour, if any other Ships ride near unto them, to catch one the others Cables betwixt them and the Rudder. And thirdly, when a Ship is under sail, these Skeggs cause much dead Water betwixt them and the Rudder, and so both hinder her Steerage and her Way. And therefore the use now is to hang the Rudder down close to the Stern-post, with the bottom thereof as low as the bottom of the Keel, only paring away a little thereof towards the aftermost sides thereof.

Adm. What mean you by the Word Strake ?

Capt. It is the Term for a Seam betwixt two Planks ; as the Garboard Strake (as aforesaid) is the first Seam next the Keel ; also they will say the Ship heels a Strake, that is, inclines or hangs to the one side more than un-

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to

to another, to the quantity of a Planks breadth.

Adm. What is a Ships Stirrup?

Stirrup.

Capt. When by any mischance, a Ship hath beaten off some piece of her Keel, which cannot conveniently be come unto to be mended, they are then constrained to patch a new piece unto that part; and this they bind with an Iron, which comes under the Keel, and so upon either side of the Ship, where it is nailed very strongly with Speeks, and this Piece thus fastned to the Keel is termed a Stirrup.

Adm. What signifieth the Trim of a Ship?

Trim of a Ship.

Capt. Most commonly by the Trim of a Ship, is understood the Swimming of her, either with her Head deep in the Water, or her Stern deep, or upon an even Keel (that is, upright) now in which of these Postures a Ship saileth best, that is called her Trim; but this is not accounted her Trim alone, for some Ships are found to sail well or ill after the manner of the staying of the Masts, and the
 Slack-

slackness of her Shrouds, and the like. And therefore to speak properly, the true Trim of a Ship, is that Posture, or that Ballasting of her, which most fitly conduceth to her good sailing. And the way of finding this Trim, is when sailing in company of another Ship, you one while, for so many Glasses or Hours, cause your People, or some Weight to be brought to your Ships Head, and another while, for the like space of time, do the like at her Stern, and then the like on an even Keel, and thereafter to make the same Tryals by the easing of her Stays, or the setting them up, and by the wedging of her Masts, and the unwedging of them, and the like experiments; and in which soever of these you shall find, that she makes her Way best, that is truly to be held her best Trim, and accordingly she is to be held unto it.

Adm. What is that which you most properly call the Ballast of a Ship?

Capt. The Ballast is whatsoever is *The Ballast of a Ship.* laid into the Hold of the Ship, being

next to the Keelson ; and it is used to keep the Ship stiff in the Sea, for the better bearing of Sail ; and in this case, the Words of Art are, to trench the Ballast, that is, to divide it into two several parts, or more in the Hold : The Ballast is shot, that is, it is run from the one side to the other. And when a Ship hath not Ballast sufficient to keep her stiff enough to bear Sail, she is said to be Walt.

Walt.

Adm. Which are those you term the Wast-cloaths ?

Wast-cloaths.

Capt. By a general Appellation, all the Cloaths which are hung about the Cage-wrock (that is, the very uppermost Works of a Ships Hull) are called Wast-cloaths ; and the use of them, is to shadow the Men from the Enemy in a Fight ; and thence they are also calld Fights.

Fights.

Adm. When is a Ship said to be Water-born ?

Water-born.

Capt. A Ship is said to be Water-born, when she is even and just with the Ground, and so begins to float.

Adm.

Adm. What is the Water-line of a Ship?

Capt. It is that Line, the which *Water-line.* (Ship-wrights say) is to be the depth that the Ship should swim in when she is duly laden, both a Head and a Stern.

Adm. Which call you the Water-way?

Capt. It is that small piece or ledge *Water-way.* of Timber which lieth fore and aft on the Ships Deck, close by the sides; and it is to keep the Water from running down there.

Adm. What is the Windlass in a Ship?

Capt. A Windlass is only used in small Ships, and in the Flemish *The wind-* Ships, which are slightly manned; *lass.* and it is a piece of Timber, having some six or eight Squares, and is fixed abaft the Stem aloft, where the Cables come in from the one side of the Ship to the other: And this Windlass will purchase (that is, force or draw up) more by much than any Captain, in the weighing of an Anchor, and that without any danger to the Men that heave (that is, that are employed

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ployed to weigh the Anchor ; and the reason is, because with this Windlass, they heave about with Handspikes, (that is, a wooden Lever used most commonly in the removing of any ponderous thing) put into the holes, which are made at either end thereof; of which, though one should chance to fail, yet the Windlass would pawl of it self, and so avoid all farther danger.

Adm. What call you Wood and Wood?

*wood and
wood.*

Capt. This is when two Timbers are let each into each other so close, that the Wood of the one doth joyn close to the other.

And thus my Lord, I have described unto you according to your Command, and the best of my Memory, and whatsoever I could find to help my Memory; all the parts and appurtenances belonging meerly to the Hull of a Ship, together with some Words of our Art, casually falling out in that our way, I shall proceed now (if you be not already wearied) without Gibberage, to speak of the Masts, Top-Masts, and Topgal-

gallant Masts that belong to a Ship of War ; with their Yards and the Appurtenances belonging unto them ; and hereafter of the Ropes, Tacklings and Sails which belong to these Masts and Yards.

Adm. I pray do so Captain, and I heartily thank you.

Capt. I shall begin then with the Main-mast of a Ship, the which is generally known to be that which is raised up, and standeth upright in the midst or waste of the Ship, and it is well and fitly termed the Main-mast, as well in respect of the length as breadth. The second Mast, in respect of Height and Eminency, is that called the Fore-mast ; and this is seated in the Fore-part or Fore-castle of the Ship. The third Mast of those, which are placed perpendicular and upright, is that named the Miffen-mast, and this standeth in the Stern or Sternmost part of the Ship ; and some great Ships there are, which require two Miffen-masts, and then that which is next the Main-mast, is termed the Main-miffen ; and the other, which stands next

The Main-mast.

The Fore-mast.

The Miffen-mast.

*The Bonaventure
Miffen.
The Bolt-
sprit.*

Top-masts.

*Top-gal-
lant-masts.*

the Poop, the Bonaventure Miffen. A fourth Mast there is, called the Bolt-sprit, and this is that Mast which stands foremost in the Head of the Ship, but stands not so directly upright as the other, but floaping-wise and pointing forward. Now of these four Masts, all of them have their Top-masts, which are Masts made fast and fetled unto their heads above, and two of them, which are the Main-mast and fore-mast have also their Top-gallant-masts, which are small Masts fetled unto the heads of their Top-masts, and upon the heads of these Top gallant-masts are set up the Flag-staves, which serve to let fly (that is, to shew abroad) the Flags.

Adm. What is that you term the Cap?

The cap.

Capt. The Cap is that square piece of Timber put over the head (that is, the uppermost end of any Mast) and it hath a round hole to receive the Mast; by which Caps, the Top-masts and Top-gallant-masts are kept steddy and firm, and those cross pieces of Timber set on the heads of the Masts, which
are

are bolted and let one into another, are generally termed the Cross-trees, *The Cross-trees.* though in more strictness, those two main pieces of Timber which pass across the Ship, are more properly so to be termed, and the other Tressel-trees; and their use is to firm the Top-masts, whose feet are fastned in them, as the feet of the lower Masts are fastned into the Steps; which Steps we have formerly mentioned.

Adm. You spake formerly of the Partners also, the which you said, were those Timbers which were bolted into the Beams, which did compass and shut in the Masts at the Deck of the Ship; but what are those which you call the Parrels?

Capt. These are those Frames made of Trucks, and Ribbs, and Ropes, *The Par-* the which going round about the Masts, have both their ends made fast unto the Yards, and are so contrived, that by them the Yards may slide up and down upon the Masts; and these, together with the Brest-ropes *The Brest-* are those Ropes which fasten the Par- *ropes.* rels

rels to the Yards) do hold the Yards fast to the Masts.

Adm. What are the Cheeks?

The cheeks.

Capt. They are two pieces of Timber fitted on each side of the Mast, from beneath the Hounds, to the upper end of the Mast; and they serve to strengthen the Mast thereabouts, and in these are those Hounds made, wherein the Ties do run; as also those Knees which fasten the Beak-head to the Bows of the Ship, are called Cheeks; the Sides likewise of any Block have the same Name; as also the Sides of a Ship Carriage for great Guns.

Adm. Which are the Hounds?

The Hounds.

Capt. They are those Holes in the Cheeks whereby they are fastned to the heads of the Masts, and wherein the Ties do run that hoise the Sails.

Adm. What are these Ties?

The Ties.

Capt. They are the Ropes by which the Yards do hang, and they carry up the Yards when the Halliards are strained to hoise the Yard.

Adm. Describe these Yards.

Capt.

Capt. Every Mast hath its Yard, *The Yards.* and they are those long Pieces which are somewhat smaller towards the ends, and go cross-wise upon these Masts, and are hoised (that is, carried) up and down upon the Masts, as cause requireth; and these Yards have the Sails of the Ship made fast unto them, and they have their Names according to the Masts that they are fitted unto; and so likewise have the Sails that belong to these Yards; the which Sails *The Sails.* (as all know) are those large pieces of doubled Canvas, the which catching the Wind, give way to the Ship; and they are cut in fashion and proportion, accordingly as the Masts and Yards are in length and breadth one unto another, excepting the Mizen-Sail, which is cut by the Leetch twice as deep as that Mast is long, from the Deck to the Hounds, and the Sprit-Sail, which is about the fourth part as deep as the Fore-sail, or rather $\frac{43}{4}$ as that Fore-sail.

Adm. What is that you term the Leetch?

Capt.

The Leetch.

Capt. It is the outward side, or out-skirt of the Sail, from the Earing to the Clew, and in more particular, it is the middle of the Sail between both these, and is termed the Leetch of the Sail.

Adm. Which is the Earing ?

*The Earing
and Bolt-
rope.*

Capt. The Earing, is that piece of the Bolt-rope (which is that Rope wherein the Sail is sowed) the which, at all the four Corners of the Sail is left open, being round in the form of a Ring ; and of these four Earrings, the two uppermost are put over the ends of the Yards or Yard-arms (as they are termed) and by them, the Sail is at those two ends made fast to the Yard, and into the two lowermost Earrings are seized the Tacks and Sheats, the which in Sea-pharse, is to say, they are bent unto the Clew.

*Bent unto
the Clew.*

Adm. Which call you the Clew ?

*The Clew of
a Sail.*

Capt. The Clew of a Sail, is that lower Corner of it which reacheth down to that part where the Tackles and Sheats are made fast to the Sail (of which Tackles and Sheats farther shall be said, when we come to speak of

of a Ships Rigging in general) so that when a Sail is made Goring (that is, *Goring.* when it comes floaping off by degrees, and is broader at the Clew than the Earing) it is then said to have a great Clew, and so on the contrary ; and when a sail is cut into a perfect Square, though it then hath no Clew at all, yet that lower end of the Sail doth still retain the Name of the Clew of the Sail ; so that a Ship is said to spread a great Clew when she hath an extraordinary long Yard, and so hath much Canvaſs in her Sail.

Adm. What is that piece of a Yard which you term a Cleat ?

Capt. It is that Wedge of Wood *The Cleat.* which is fastned upon the Yard, to keep any of the Ropes from slipping off the Yard, in any of those parts where these Cleats are.

Adm. Which be the Coats of the Maſts ?

Capt. They are those pieces of *The Coats of the Maſts* tarred Canvaſs which are put about the Maſts at the Partners ; and they are likewise put about the Pumps at the Decks, that no water may paſs down

down that way, and these are also used at the Rudders head.

Adm. Which be the Gromets?

The Gromets.

Capt. They are small Rings made fast to the upper side of the Yard, with Staples driven into the Yard, and are of no other use but to tie and make fast the Laskets there-into.

Adm. Which be these Laskets?

The Laskets.

Cap. These Laskets, or rather Latches, are small Lines sown into the Bonnets and Drablers in the fashion of Loops; and with these the Bonnets are laced unto the Courses (for so are the Sails called when they are without their Bonnets) And by the very same are the Draplers laced unto the Bonnets?

Adm. What are these Bonnets and Drablers?

*Courses,
Bonnets
and Drab-
lers.*

Capt. The Bonnet is an addition of a piece of a Sail, so that when Sea-men say, that the Ship hath her Course and Bonnet abroad; the meaning is, that she hath that piece of Sail added unto her Course which before she had not, or ordinarily hath not; and the
Words

Words of Art belonging to this particular, are, lace on the Bonnet, that is, fasten it on to the Course; shake off the Bonnet, that is, take it off. And as the Bonnet is to the Course, so in all respects is the Drabler to the Bonnet, and it is only in use, when the Course and the Bonnet are too shallow to cloath the Mast.

Adm. What are your Bolt-ropes and their Appurtenances?

Capt. Of the Bolt-ropes I spake even now; the Appurtenances to the Bolt-ropes are the Crengles, which are small Ropes spliced unto the Bolt-ropes of the Sails belonging to the Main and Fore-mast, unto which the Bowling-bridles are made fast; and they are also to hold by when the Bonnet is shaken off.

The Crengles.

Adm. What are these Bowlings, and Bowling-bridle?

Capt. It is a Rope fastned to the Leetch of the Sails: and it is fastned to 2, 3, or 4 parts of the Sail, which is called the Bowling Bridle; only the Miffen Bowling is fastned to the lower end of the Yard: And the words of Art here, are

Bowlings and Bowling Bridle.

are, sharp the main Bowlings; hale up the Bowling; set taught the Bowling; and all these Sea Phrases are used, when the Bowling is to be pulled up harder; or more properly, when it is to be haled forwards on: and on the contrary; to ease the Bowling; to check or run up the Bowling, is to let it out more slack.

Adm. What other Appurtenances have you to the Bolt-ropes?

Bunt-lines.

Capt. They are the Bunt-lines, which are made fast to the bottom of the Sails, in the middle part of the Bolt-ropes, unto a Crengle, and so reeved through a small Block, seized to the Yard: and the use of them is, to trise up the Bunt of the Sayl; that so it may be Fathedled (that is made up.)

Adm. What call you a Jury-mast?

Jury-mast.

Capt. When by Extremity of any Tempest or Storm, either the Fore-mast, or Main-mast is blown over the Board (that is broken or blown down) then they take either the Main or Fore-yard, and putting any one of them into the Step of the broken Mast, and

and withal fastning it unto the Partners; and fitting a Mizen-yard or the like thereunto; they order it with Sails and Ropes, into the form of the ruined Mast; and so make a ~~poor~~ Shift to Steer and govern the Ship. And this they term a Jury-mast.

Adm. When is a Mast said to be Cloathed?

Capt. When her Sail reacheth to the Gratings or Hatches.

Adm. By the way here tell me I pray you, the Sea significations of the word Steer, and the ways of directions belonging thereunto.

Capt. To Steer, is, in general, to To Steer.
Govern the Ship with the Helm: And the Ship is Steered at the best, when it is most kept from Yawing in and out: As also, when he that Steereth practiseth the least motion, in putting the Helm too and again. And there are three kinds of Directions to Steer by: The one in Steering by the Land; and that is when being within perfect Ken (that is sight) of any Shore, he that Steereth, viewing some Mark on the Shore, guideth the Ship even with that
M part.

parts. The second is to Steer by the Compass, and this is to Guide the Ship's Head, upon such Points of the Compass as best lead to the appointed Place or Port. The third kind is, to Steer as one is Conded; of which we have formerly spoken, with the words of Art belonging to Steerage in general.

Adm. Let us now then return to the Parts of Masts again, and tell me what is that you term a Paunch?

Paunches.

Capt. Those Matts of Sinnet, which are made fast to the Main and Fore-Yards, to save them from Cauling against the Masts, are termed Paunches.

Adm. What is this Sinnet?

Sinnet.

Capt. It is a Line or a String, made of Rope-yarn; and is generally of two, six, or nine Strings, divided into three parts, and platted one over another, and so is beaten small and flat with a Mallet of Wood; And the main use hereof, is to serve Ropes in general.

Adm. How is this serving of Ropes?

Capt:

Capt. To serve any Rope, is to lay ^{Serving of Ropes.} either Sinnet or Spun-yarn, or Rope-yarn, or any piece of Canvas, or the like, upon a Rope; and there to roul it fast round about the Rope, and so to preserve it from Gauling, in any suspected part.

Adm. What be these Spun-yarns, and Rope-yarns?

Capt. The Rope-yarns are the ^{Rope-yarns.} Yarns of any Ropes untwisted; but most commonly, they are made of the ends of Cables half worn, (which are called the Junicks of Cables) and these serve for many uses aboard Ships; as to serve small Ropes, or to make Sinnets, Matts, and the like; as also to make Knetles (which are two of these ^{Knetles.} Yarns together untwisted) and to make Caburns (which are Lines to bind ^{Caburns.} Cables withal. They serve likewise to make up the Sails to the Yard-arms. As for the Spun-yarns, they are a kind of ^{Spun-yarn.} Rope-yarns, whose ends are scraped or beaten thin, and so are into the other end, and so made as long as occasion doth require.

Adm. What is meant by the Spending of a Yard or Mast?

*Spending of
a Yard, or
Mast.*

Capt. When a Mast, or Yard is broken down by foul Weather, or any other accident, the Sea-word is, the Mast or Yard is spent: But if this come, by any Shot from an Enemy in a Fight, then the Word is, that the Mast or Yard is shot by the Board.

Adm. What is it, to Spring a Mast?

*To Spring a
Mast.*

Capt. When a Mast, is only crackt, and not quite broken, in any part whatsoever, as at the Hounds, Partners, or else where, then the Sea-saying is, the Mast is Sprung.

Adm. What mean you, by the sling-
ing of the Yards?

*Slinging of
the Yards.*

Capt. This Word sling, is variously used in Sea-business: For there are Slings to hoise up Cask, or any other pondrous things: and these are made of Rope spliced into its self at either end, and making an Eye there as large as shall be found capable to receive the Cask or the Pack into it. Another kind of Slings there are, which are made longer, with a small Eye, at either end:
and

and the one Eye is put over the Breech of a great Piece, and the other cometh over the end of a Crow of Iron, which Crow, is put into the Mouth of the Piece; by which means, the Gun is weyed and hoyled at pleasure. The third sorts of Slings, is that which is here mentioned in the slinging of the Yards: and this is done by any Rope or Chain, wherewith the Yards are fast bound aloft to the Cross-tree, and to the Head of the Mast: and this is done, that if the Tye should chance to break, or be shot into pieces in a Fight, that nevertheless, the Yard should be preserved from a falling down upon the Hatches.

Adm. Have you not a Yard, called the Cross-jack?

Capt. Yes my Lord; and it is a small ^{*The Cross-Jack.*} Yard, at the upper end of the Mizen-mast, under the top there; and it is there slung, having neither Halliards, nor Tyes belonging unto it. And the use thereof is, to spread and hale out the Mizen Top-sail-sheats.

Adm. What call you the Bunt of a Sail?

*The Bunt of
a Sail.*

Capt. The Bunt is to a Sail, as the Cod to a Net, being the very Pouch, or Bag of the Sail; and therefore all Sails have this Bunt, the better to catch and keep the Wind: And the words of Art belonging to this part, is; the Bunt holds much Leeward Wind; that is, that this Bunt hangs too much to the Leewards.

Adm. What implies the word Leewards?

Leeward,

Capt. Of the Sea-word Lee, somewhat hath been said already; and it is a word diversly taken in the Sea-language: Generally by the word Lee, is meant that part, which is opposite to the Wind; as the Lee-shore is the Shore which the Wind blows upon; and to be under the Lee of the Shore, is to be close under the Weather-shore, and that is under the Wind. To Alee the

Lee-shore.

*Under the
Lee.*

*To Alee the
Helm.*

Helm, is to put the Helm to the Lee-side of the Ship. What the Lee-latch

*A Leeward
Ship.*

is, hath formerly been said: A Leeward Ship, is a Ship not fast by a Wind, that is, doth not Sail so near the Wind,

*To come by
the Lee*

or doth not make her way so good, as she might. To come by the Lee, or

to lay a Ship by the Lee, is to bring her so, as that all her Sails, may be flat against the Masts and Shrouds, and the Wind to come right on her broad side: And the way of the bringing of a Ship by the Lee, is (if all her Sails be abroad) to beat up the Helm hard to the Wind-wards, and to let rise the Fore-tack, and Veer the Main-sheat, and take in the Mizen-mast; or at the least, Peek it up; which Peeking up, is called Spelling the Mizen.

To spell the Mizen.

Adm. What doth this word Veer signifie in your Sea-sayings?

Capt. To Veer out a Rope, is to put it out by Hand, or to let it run out of its self: as Veer more Cable, that is, let more of it run out: So that the word Veer is generally used for the letting out of more of a Rope; and especially of any of those Ropes, which are used without Board, that is, without the Ship; as of the Boat-rope, Log-line (whereof more anon) or of any other Rope, whereby any thing is towed. But this word Veer, is not used to any Running Rope, save only of the Sheats, as here of the Main-sheat:

To Veer.

*A Ship goes
Veering.*

*Quarter-
ing.*

Sheat: and then they say, Veer out more Sheat, that is, put out more of it. This word Veer is also used, when the Wind chadgeth often, sometimes to one Point, and sometimes to another, and that suddenly, as in Storms; and then they say, the Wind Veeereth. Also when a Ship being under Sail, with the Sheat Veeered out; they say she goes loft Veering, that is at large; for then she goeth neither by a Wind, nor before the Wind, but as it were betwixt two; the which also is termed Quartering. And this Word Quartering is also used when a peice of Ordnance may so be traversed, that it will shoot in the same Line or on the same Point of the Compass, as the Ships Quarter beareth: when a Ship Sails also with Quarter Winds, it is said that she goes quartering. And thus my Lord, having done, (as far as I can find or call to mind) with the Masts, Yards and sails, belonging unto a Ship of War: we will now proceed (if it please you) to speak of the Riggings of a Ship in general, and of the Ropes that belong unto her, in particular.

Adm.

Adm. I pray do so Captain, and I shall be a diligent and thankful Auditor.

Capt. In the first place, it will be *Rigging.* fit to speak somewhat of the Sea-word Rigging it self, that by the explanation thereof the rest ensuing may be the better apprehended. By the Rigging therefore of a Ship, is to be understood all her Ropes whatsoever, that belong to her Masts, Yards, or any part about her; although in more particular we say sometimes, that her Masts, or her Yards are rigged, when she is furnished with all the Ropes belonging unto them only. And a Ship in general is said to be well rigged, when the Ropes belonging unto her, are of a fit size; as also when her universary Ropes, as her two main Shrowds, Tackles, Crow-
feet, and the rest, are all put up: And a Ship is said to be over-rigged, when her Ropes, are too big for her; the which is a great wronging to a Ships sailing, because a small over-weight aloft hinders more that way, then a far greater below; for it makes a Ship
after

*Ropes.**Entring-
Rope.**Top-Rope.**Guest-Rope.**Bucket-
Rope.**Rudder-
Rope.*

apter to heel; (what is reel or lye on the one side) and holds her Wind-taught. As for the Word Ropes, it in general comprehendeth all the Cordage belonging to a Ship, as her very Cable is called a good or a bad Rope; and so a Hawser, and the like, although more particularly, there are some Ropes, to which this appellation is given unto in especial; as the entering Rope, which is that which hangs at the Ladder; a top Rope, which are those Ropes that belong to the Top; the Bolt-rope, of which is spoken already; the Buoy-rope, of which more shall be said hereafter; the Guest Rope; the Keel-rope, of which you have heard; The Bucket-Rope, which is that which is made fast to the Bucket to draw up Water; The Rudder-Rope, which is a Rope or Strap reeved into a hole of the Rudder near the head, and so likewise thorough the Stern-post, and both the ends thereof are spliced together, and it serveth to save the Rudder, if it should chance to be beaten off, when the Ships strikes on ground by

by any mischance : And lastly the *Pre-venter-Rope*, which is a small Rope seized cross over the Ties, close at the Ram-head ; so that if any one part of the Tie should break, yet the remainder should not run thorough the Ram-head, to endanger the Yard.

Adm. To understand this passage the more fully, you must explain the Sea-terms, Wind-taught, and that called the Ram-head.

Capt. The Ram-head, is a great Block with three Shivers in it, into which are put the Halliards, and at the Head thereof the Ties are reeved into a Hole : and this Block doth only belong to the main and Fore-Hallyards.

Adm. Well, what is Wind-taught ?

Capt. Any thing holding (that is, catching) the Wind aloft is termed Wind-taught ; and so too much Rigging, all high Ropes, and the like, is said to hold the Ship Wind-taught, that is, is apt to make her stoop too much in her Sailing in a Stiff Gale of Wind. Likewise when a Ship rides in any main stress, the Yards are brought

brought alongst the Ship; and the Top-Masts are struck down, because they hold much Wind, and so are said to be Wind-taught; so that Taught in the Sea-Tongue, is as much as stiff, as if one should say the Top-Mast and their Yards, are Stiff in the Wind.

Halliards.

Adm. You named the Halliards even now; what are these?

Capt. They are those Ropes by which all the Yards are hoisted, save the Cross-Jack, and the Sprit-Sail Yard, which have no Halliards, because they are ever slung; only in small Craft they have Halliards to the Sprit-Sail Yard.

Small-craft.

Adm. What mean you by small Craft?

Capt. This word Craft used as a Sea-word, signifieth, not only, all such Lines, Nets, and Hooks, as serve to catch Fish; but all small Vessels, as Catches, Hoys, Craies and the like, are termed small Craft.

Adm. You have satisfied me: Proceed to explain the proper and particular Names of your Ropes, as the Shrowds,

Shrowds, Sheats, Tacks, and the rest of them.

Capt. The Shrowds of a Ship, are ^{Shrowds.} those Ropes which come from either sides of all the Masts : and the Miffen, the Main-Mast, and Fore-Mast Shrowds, have at their lower ends, Dead mens- ^{Dead-mens-eyes.} eyes (which are a kind of small Blocks, wherein are many holes, but no Shivers; and in them, the small Ropes, called the Lamiers, do run which fasten the Shrowds to the Chains) and these are set-taught by ^{Set-taught the Shrowds.} the Lamiers to the Chains (which are made fast on the Ship Sides) and these also have Dead-mens Eyes in them : And these Shrowds, at their other ends, are fastned over the head of the Mast : their Pendants, Fore-tackle, and Swifsters, being first put under them; and at this uppermost part, they are served, to preserve them from Gauling against the Mast. The Top-Mast Shrowds likewise are, in the same manner made fast, with Dead-mens Eies, and Lamiers unto the Put-tocks, and those Plates of Iron, which there serve to that purpose. And the peculiar

Ease the Shrowds.

peculiar words of Art, belonging to these Shrowds are, ease the Shrowds, that is, flaken them; set-taught the Shrowds, that is, set them stiffer.

Pendants.

Adm. What are those Pendants, you spake of?

Capt. This Word Pendant, when it is a Sea-word, is used in a twofold sence: For those long streamers, which are hung out at the Yard Arms, and sometimes at the Heads of the Masts, for a show and Gallantry, or to distinguish Squadrons, are named Pendants; (and of these we shall have occasion to speak farther hereafter) but by the name Pendant in this place, is to be understood that short Rope, which is made fast at the one end thereof, either to the head of the Mast, or to the Yard, or to the Clew of a Sail; and it is in bigness according to the Place where it is used; and having at the other end a Block with a Shiver, to reeve some running Rope thereinto: As for example the Pendant of the Tackle is made fast to the Head of the Masts, that is, at the Tops of the Masts; and the Pendants to the Back-stays, are made

made fast, and do hang down, on the inside of the Shrowds. And indeed all the Yards Arms, excepting the Millen have of these Pendants, into which the Brases are reeved, and by them they are easily distinguished.

Adm. What are those you call Tackles?

Capt. They are small Ropes, which *Tackles.* run in three parts, having either a Pendant with a Block fastned unto them, or a Lamier; and at the other end a Block and a Hook, to catch hold; and so heave in goods and ponderous things into the Ship: and of these Tackles, there are divers sorts; as the Boats-Tackles, which stand the *Boats-Tackles.* one on the Main-Masts Shrowds, and the other on the Fore-Mast Shrowds, and serve to hoise in the Boat; and withal for sundry other uses: As also the Tackles which belong to the Masts, which serve in the Nature of Shrowds to keep the Masts from straining: As likewise the Gunners Tackles, *Gunners-Tackles.* with which the Ordnance are haled in and out: And lastly; there is a winding *Winding-Tackles.* Tackle of which we spake before. And that part of the Rope of a Tackle

The Fall.

Tackle which is haled upon, is called the Fall; but that end thereof, whereunto the Block is seized, is named the Standing part. True indeed that the word Fall, is also used in some other acceptations, as a Ship is said to Fall off, when being under Sail, she keepeth not so near the Wind as is appointed: and when a Ship is said to have a Fall, or many Falls, it is meant by some risings or layings up of some parts of her Decks, higher or lower, then some other of the parts, and is quite contrary to that which is called Flush.

The Swifters.

Adm. Which term you the Swifters?

Capt. They belong to the Main, and Fore-masts, and serve to succour (that is relieve or strengthen) the Shrowds, and to keep stiff the Masts; and they have their Pendants made fast under the Shrowds at the head of the Masts, with a double Block thorough which is reeved the Swifter; the which at the Standing Part, hath a single Block with a Hook, which is hitched in a Ring by the Chain-wale; and so being haled, doth help to strengthen the Masts.

Masts. But the word **Swift**ing in Sea-Language, is used, when Ships are either brought on Ground, or brought to a **Careen**; for then they use to swift the Masts, and so to ease and strengthen them: And this is done by laying fast all the **Pendants** of the **Swifters** and **Tackles** with a **Rope**, close unto the Mast, and as near unto the **Blocks** as may be; and then, to carry forwards the **Tackles**, and so to **Bowse** them down, (that is, to hale them down) as hard and taught, as is possible: and the Sea-word of Command, is here, **Hoe, Bowse Men**; for the haling up-^{Bowse} on a **Tack**, is termed the **Bow**sing up-on the **Tack**; and this is done not only to ease the Mast, but likewise to help to keep it from rising out of the **Step**.

Adm. What is the Sea-sence of the *Ease*. word *ease*?

Capt. This word is used at Sea, in the same sence, as the word **slack** ashore; for when Sea-men would have any **Rope** slack, they say **Ease** it, as ease the **Bowlings**, or ease the **Sheats**, &c. Only when the **Tack** is to

N

be

Rise.

be slackned, the proper phrase is, Rise the Tack.

Adm. What is this Tack?

Tack.

Capt. The Tacks are great Ropes, having a Wale-knot at one end, which is seized into the Clew of the Sail, and so is reeved first through the Chets-trees, and it comes in at a hole in the Ships Side; and the use thereof is, to carry forwards the Clew of the Sail, and to make it stand close by a Wind; and then the Sails are thus trimmed, the main Tack, Fore-tack, and Miffen-tack, are brought close by the Board, and over-haled as forward on as may be: the Bowlings are the like on the Weather side: the Lee-sheats are haled close aft, but the Lee-sheat of the Fore-sail, not so close as the other, unless the Ship gripe: The Lee-braces of all the Yards are braced aft; and the Top-sails are braced, and governed as the Sails whereto they belong: And hence it is, that the Sea-phrases are; the Ship stands or Sails close upon a Tack, that is, close by a Wind: Hale aboard the Tack, that is, bring it down close unto

*close upon
a Tack.*

*close by a
wind.*

*Hale a-
board the
Tack.*

unto the Chess-trees ; Ease the Tack, ^{Ease the Tack.} that is, let it go or run out ; now these Tacks are belayed to the Bitts, or else there is a Chevil which belongs to ^{Chevil.} the Tacks, and these Tacks belong only to the Main-sail, Fore-sail, and Miffen, and they are ever made tapering.

Adm. Before you proceed any farther, tell me, what a Wale-knot ^{Wale-knot and Tapering knot.} is, and Tapering, which you mentioned in this last Section.

Capt. There are two sorts of knots used at Sea, the one is a Bowling knot, which is so made, that it will not slip, nor slide ; with this knot the Bowling-bridles forementioned, are made fast to the Crengles ; and it is used also in many other occasions : the other is the Wale-knot, which is a round knot or knob, made with three strands of a Rope, so that it cannot slip ; and with these Wale-knots, the Tacks, the Top-sail-sheats, and the Stoppers are made fast, and some other Ropes beside. As for Tapering, it is when any Rope or any thing else is much bigger at the one

N 2

end

end, then at the other, as the Tackles are made tapering, which make them to purchase the better, and withal saveth a great deal of stuff, because the Rope at one end bears little or no stress; and in the same sense, a Gun is said to be Taper-bored, when the Bore is wider at the mouth than towards the Breech.

*The Put-
tocks.*

Adm. You spake not long ago, of a Piece of Rigging, called the Puttocks; shew me what these are, and where they are placed.

Topps.

Capt. They are those small Shrowds, which go from the Shrowds of the Main-mast, and Fore-mast, and Mizen-mast, and also to the Top-mast Shrowds; and if the Top-mast, have Top-gallant tops, they are to go from off those Shrowds in those tops; for otherwise, when the Shrowds come near unto the Masts, they fall so much inward, that people could not get into the tops; that is, into the Caps of the Masts; and therefore these Puttocks are at the Bottom seized to a staff, there made fast to the Shrowds, or to some other Rope, which

which is seized to a Plat of Iron, or to a Dead-mans Eye; to which the Lamiers of the Fore-masts Shrowds do come.

Adm. What mean you by the back-*Back-stays.* stays formerly mentioned?

Capt. All Masts, Top-masts, and Flag-staves have stays, except only the Sprit-sail Top-mast: The Stay to the Main-mast, which is called the Main-*Main-stay.* stay, is made fast by a Lamier to a Collar, which comes about to a knee belonging to the head. The Main-*Main-top-mast Stay.* top-mast Stay, is made fast into the head of the Fore-mast by a Strap, and a Dead-mans Eye: The Main-top-galant Mast, is in like manner made fast to the head of the Fore-top-mast, and the Fore-top-mast, with the Masts belonging to it, are in the very same manner stayed at the Bolt-sprit, and Sprit-sail Top-mast; and these Stays do likewise stay the Bolt-sprit it self; The Miffen-stay comes to the Main-*Miffen Stay.* mast, by the half Deck, and the Top-mast stays come to the Shrowds with Crows-feet. Now the use of these stays are to keep the Masts from falling aft-wards, towards the Poop.

And thus much for the Stays in general; as for the Back-stayes of all Masts that have them (which are only the Main-mast, and fore-mast, with the Masts belonging unto them) they go down on either side of the Ship, and serve to keep the Mast from pitching forward or over-board.

The Braces.

Adm. Which call you the Braces?

*To square
the Yard.
Brace the
Yard.
Traverse
the Yard.
Right the
Yard.*

Capt. They are Ropes belonging to all the Yards, except the Mizen; and to every Yard belong two Braces, which have a Pendant seized to the Yard Arms; and at the end of the Pendant there is a Block, thorough which that Rope is reeved, which is termed a Brace; and the use hereof is to square the Yard; that is, to set it square, and to brace the Yard, which is to bring it to any one side: and to traverse the Yard, that is, to set it any way overthwart; and to right the Yard, which is to bring it right.

And all these Braces come afterwards on; as the Main Brace, to the Poop; the Main-top-sail Brace, to the Mizzen-top, and so to the Main-throwds; the fore, and the Fore-top-sail Brace, to the

the main and Main-top-sail Stays, and so of all the rest; only the Mizen-bowling serveth for a Brace to the Yard, but the Cross-jacks Braces, are brought forwards on to the Main Shrowds, whensoever the Ship sails Close by a Wind.

Adm. What is a Careen?

Careen.

Capt. A Ship is brought to a Careen, when after that the most part of her provisions, Victuals, and Lading, are taken out of her; there is then layd by her side, a lower Ship than her self; by which she is haled down on the one side, as far as cause requireth, as to the third, fourth, or fifth strake; and likewise if a Ship lye or incline much on the one side, in her bearing of Sail, she is said to sail on the Careen.

Adm. What mean you by the *Graving*.
Graving of a Ship?

Capt. It is a bringing of her on Ground, and then to burn off the filth and foulness, that cleaves to her Sides, without Board, with Reed, Broom, or the like, and so to pay her anew.

*Paying.**Adm.* What is this Paying?*Parcelling.*

Capt. The Word Pay, in our Sea-phrafe, is diversly taken; it is sometimes all one with Parcelling; the differences are, that Parcelling is done with Canvass, Paying without Canvass; and these are done, when a little Canvass about the breadth of a hand, is layd upon a seam, newly Calked, and that is called Parcelling; and when this seam, having no Canvass upon it, is layd over with hot Pitch, it is then termed paying; and the second difference is, that Paying is allways done with Pitch, Parcelling with Tar. Sometimes again the Word Paying is used, when a Ship is to tack, and that all her Sails are a Back-stayd (that is flat against the Masts and Shrowds) then they say she is payd, or the Ship is Payd; but by the Word Paying in this place, is meant, when in the Graving of a Ship, after her soil is burned off, they lay on some new stuff, as either Tallow and Sope, or which is best, Train-oyl, Rosen and Brimstoneboyled together; and this also is called Paying of a Ship.

Adm.

the Parts of a Ship.

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Adm. What call you Calking? *Calking.*

Capt. To Calk, is to drive Oakam, Spun-yarn, or the like, into the Seams, Rends, and Trenels throughout all the Ship.

Adm. Of Spun-yarn you spake before; but what is this Oakam? *Oakam.*

Capt. It is nothing else but old Ropes untwisted, and so pulled out as it were into loose Flax again; and when either Tow or Flax it self is thus employed, it is called white Oakam.

Adm. What now are your Seams, *Seams.* Rends, and Trenels, into which this Oakam is driven.

Capt. The Seams of a Ship, are *Rends.* those meetings together of her Plancks: The Rends.

The Trenels, are (*quasi* Tree-nails) *Trenells.* Nails made of a Tree, and are long wooden Pins of hard Oak, with which are fastened the Plancks to the Timbers; and all these have Oakam drove hard into them, and then are paid (as a-forefaid) to keep them from leaking.

Adm. And what is this Leaking? *Leaking.*

Capt.

Capt. The signification of the Word, is well enough known to Land-men as well as Sea-men ; but in regard that there is no Ship so tite (that is free from taking in of water) but that with her labouring (that is working) the Sea ; nay, even in a Harbour, some water will get into her ; therefore, in Sea-language, a Ship is properly said to have a Leak, when she makes more water (that is, takes in more water) than ordinary. Now the Causes of Leaks, are either the starting out of some Trenels, or the opening of her Seams ; or the eating of VVorms thorow her Plancks, or by receiving in a Fight, some Shot under water, or the like. And the Sea-phrases, when a Ship hath a Leak, are either, that she hath sprung a Leak, or that she makes much water.

Spring a Leak.

Adm. You have told me what Carreening is, and what Graving is ; tell me what you mean by the washing of

Washing of a Ship.

Capt. This washing of a Ship is only used at Sea, and it is done when they cannot lay her on Ground, nor Ca-

Careen her, and then instead of them, they make her to heel on the one side as much as they conveniently may, by bringing all her Guns, and causing all her Men to get up on the Yards to one side, and so they wash her other side, and scrape it as far as they can reach. And this cannot be done but in Calms and smooth water.

Adm. I understand your Word Calms well enough ; but what mean you by Becalming ?

Capt. Becalming, is when any thing doth keep off or away the Wind from a Ship ; and so one Ship is said to becalm another, when she comes up with her on the Weather side, or when the Shore keepeth the Wind away. *Becalming.*

Adm. What is that you term wind-
ing of a Ship ? *winding of a Ship.*

Capt. To wind a Ship, is to bring her Head about, and this is done either with the Boat, or with some Oars within her self, put out at her Hawse or Stern-posts, if she be but a small Vessel ; and the Ship is said to wind up, when she comes to ride by her Anchor ; and being under Sail, they

they use to ask how the Ship winds, that is, how doth she lye with her Head ?

Adm. We have fallen off from our Discourse concerning the Ropes belonging to a Ship, let us now return to it again, and tell me what Rope is that you called even now a

The Collar. Collar.

Capt. It is that Rope which is made fast about the Beak-head, whereunto the Dead-mans Eye is seized, into which the Main-stay is fastned ; and besides this, there is also a Rope about the Main-mast Head, called the Collar or Garland, and it serves to save the Shrowds from Gallling.

The Garland.

Strap.

Adm. What call you a Strap ?

Capt. It is that Rope which is spliced about any Block, that by it the Block by the Eye made in the Strap at the Arse (that is, the lower part) of the Block, may be made fast to any place where they have occasion to use it.

Adm. Which are those Ropes you named Crows-feet ?

The Crows-feet.

Capt.

Capt. They are those small Lines or Ropes which are divided by the Hole of a Dead-mans Eye, into six, ten, or more parts, and are there left hanging by the Boat-swain, to make the Ship show full of small Rigging; and they are placed on the bottom of the Back-stays, belonging to the Fore-top-mast, Miffen-top-mast, and Gallant-top-mast.

Adm. What are those Ropes you term the Puddings?

Capt. They are Ropes nailed to the Yard-arms of the Main and Fore-yards, close to the ends of them, and so in three or four other Distances one from another, upon each Yard-arm; and their use is to save the Robins from gauling asunder upon the Yards, when the Top-sail Sheats are haled home: The serving of the Rings of the Anchors also with Ropes, to preserve the Clinch of the Cable from gauling with the Iron, is called the Pudding of the Anchor.

The Puddings.

Adm. What Ropes be these Robins?

The Robins.

Capt.

Capt. They are small Lines reeved into the Eyelet-holes of the Sail, under the Head-ropes (that is, under the Ropes of the Sails, which are uppermost, and next unto the Yards, and by which the Sails are made fast unto the Yards) and they serve indeed to make fast the Sails unto the Yards : And the *Make fast.* Sea-phraſe here is, Make fast the Robins, and not tie them ; for Sea-fairing men ever uſe the Word Make-fast, inſtead of Tying.

The Clinch of a Cable. *Adm.* What is the Clinch of a Cable ?

Capt. It is that part of a Cable, which is ſeized about the Ring of the Anchor.

The Cable. *Adm.* Deſcribe the Cable it ſelf unto me.

Capt. Cables have ſeveral Appellations, and are called the firſt, ſecond or third Cable, according as they are in greatneſs ; and (as all the World knows) they are thoſe main Ropes, the which being faſtned to the Anchor, do hold the Ship faſt when ſhe rideth ; and the Words of Art belonging to this Rope, are, The Cable is well

well layed, that is, well made : Serve the Cable, or plate the Cable ; that is, bind it about with Ropes or Clouts to keep it from gauling in the Hawses : Splise a Cable, which is to fasten two Cables together with a Splice : Quoil the Cable, that is, to rowl it up : Cable tire, that is, when the Cable is laid up in Rowls one Rowl above another : Pay more Cable, which is when an Anchor and a Cable is carried out in the Boat, to be turned over into the Sea ; and they would have more Cable to be put or handed out of the Ship , they then say, Pay more Cable, that so the Boat may row the easier : Pay cheap the Cable, which is to put out the Cable apace : Veer more Cable, that is, put out more Cable : A Shot of a Cable, which is when two Cables are spliced together.

The Cable is well layed. Serve or plate the Cable.

Quoil the Cable.

Pay more Cable.

Adm. What is Splicing ?

Splicing.

Capt. Splicing, is to make fast the ends of Ropes one into another, by opening the Strands or Twists at the ends of both Ropes, and then with a Fidd, to lay every Strand, in order one

Splices.

one into another. Also when an Eye is to be made at the end of any Rope, the ends of the Strands or several Twists, are with a Fidd drawn into the ends of the other Ropes Strands, and this is called a Splice; and of these Splices there are two sorts, the round Splice, that is (as aforesaid) the intervening of the ends of two Ropes one into the other; and that which is (barbarously) nicknamed the Cunt-splice, which is when the Strands of either Rope are put one into another, a good distance off from the very ends, and the very ends left out unspliced; by which means is made a long Slit; the which, with the rude Name-givers, begat the Name.

Fidd.

Adm. What is that you here name a Fidd?

Capt. It is only an iron ^{*Pin*}~~Prime~~, made tapering and sharp at the end; there are also Fidds of Wood, being much bigger than those of Iron, though both of one and the same use, formerly set down. The Pin likewise, which is in the Head of the Top-mast, and

and which beareth it upon the Chest-trees, is called a Fidd ; there is also a Fidd-hammer, which is a Fidd at the *Fidd-* one end, and Hammer at the other *Hammer.* end, witha Head and a Claw to drive in, or draw out a Nail.

Adm. You spake even now of the *Quoiling.* Quoiling of a Cable, but very briefly ; I pray tell me more at large, what a Quoil of Ropes is, and what it is to Quoil.

Capt. A Quoil, or Coil of Ropes, *A Quoil.* is when Ropes are laid in a round, one Fake over another. A Quoil of Cable, is when a Cable is laid in the same manner, and if half the Rope or Cable be cut away, and so laid up, it is called a half Quoil of the Rope or Cable. So that to Quoil, is to lay the Fakes of a Rope round, the one Fake, over and upon the other ; that so when cause requires, these Ropes may run smooth and clearly out, without any Knecks (that is, Twistings) or Kencks *Knecks,* (that is, Doublings) and may also lye *Kencks.* handsomly, and take up little room in a Ship.

Adm. Which are these Fakes ? *Fakes.*

O

Capt.

Capt. They are only the several Circles of the Rope or Cable, that are Quoiled up round ; so that when a Cable is veered out, it is demanded how many Fakes are left, which is as much as to say, how much of the Cable is left behind unveered ?

Adm. When is a Cable said to be bent ?

*Bend the
Cable.*

Capt. When it is seized and made fit and fast to the Ring of the Anchor. And to bend two Cables, is to tie them together, and so to make their own ends fast upon themselves.

Bight.

Adm. What is a Bight ?

Capt. It is the compassing or bringing about of a Rope or Cable ; as to hold by the Bight, is to hold by that part of the Rope which is rowled up, or quoiled up.

*A Bitter of
a Cable.*

Adm. What is a Bitter of a Cable ?

Capt. It is only the Turn of the Cable about the Bitts, that so it may be veered out by little and little at pleasure ; and when a Ship is thus stopped by the Cable, she is said to be brought up to a Bitter. And the
Bitter

Bitter end of a Cable, is that which is always at the Bitts, when the Ship is at an Anchor, and then the Sea-saying is, bend it to the Bitter end.

Adm. What is that that you Sea-men call a Boun-grace? *A Boun-grace.*

Capt. It is a certain Frame or Composition of old Ropes or Juncks of Cables, which is used to be laid out at the Bows, Stems and Sides of Ships, to preserve them from great Flakes of Ice, when they sail far Northwards, or far Southwards.

Adm. What Ropes are those you term the Brails? *Brails.*

Capt. They are small Ropes reeved through Blocks; on either side whereof are seized the Ties, some distance off upon the Yards; and so they come down before the Sails, and are fastened to the Crengles at the Skirt of the Sail; and their use is to hale up the Bunt of the Sail, when the Sail is farthelled across. And here the Sea-word is, Hale up the Brails, or brail up the Sails; both which Phrases import one thing, which is, that the Sails be

*Hale up the Brails.
Brail up the Sails.*

*Furling-
lines.*

haled, up to be farthelled or furled, and this furling of the Sail is, when being haled up by the Brails, it is wrapped up close together, and so bound with the Caskets to the Yard; and those small Lines made fast to all the Top-sails, Top-gallant-sails, and all the Miffen-yard-arms are termed the furling Lines, of which the Miffen hath only one, but all the other one on either side, and by these those Sails are furled; as for the Top-Sails, they have not their Bunts bound up to their Yards, as the Main and Fore-sails have, but they are laid upon the Tops, and so bound fast to the heads of the Masts, and this is termed stowing of the Top-sails.

Caskets.

Adm. What are the Caskets?

Capt. They are small Strings made of Sinnet, and are made fast to the upper part of the Yards in little Rings called Grommets; their use is to fasten the Sail to the Yard, when it is to be farthelled up; the biggest and longest of them, are placed just in the middle of the Yard betwixt the Ties, and these are termed the Brest-caskets.

Adm.

Adm. I remember you told of a Stern-fast before, what is that Rope you call a Brest-fast?

Capt. As the Stern-fast is firmed to the Stern of the Ship, so this Brest-*Brest-fast.* fast is a Rope fastned to some part of the Ship forward on, to hold fast the Ships head to a Warp or the like.

Adm. What call you a Warp?*Warp.*

Capt. To warp up a Ship, is to have a Hawser or any other Rope sufficient to hale up the Ship, with an Anchor bent unto it, and so to lay it out towards that part or place whither they would have the Ship to go, and by that to hale her thither; and this is principally used when a Wind is wanting to carry the Ship into any such place, and this is termed Warping.

Adm. Which be the Ropes you named Catharpins?*Catharpins.*

Capt. They are small Ropes, running in small Blocks from one side of the Shrouds to the other near the Decks; they are employed to force the Shrouds, and make them taught,

for the ease and safety of the Masts, and they are only used to the main Shrowds, unless it be at the setting on of the Puttocks of the Shrowds, where they are always made fast, and run not into the Blocks.

*Chafing of
a Rope.*

Adm. What mean you by the chafing of a Rope?

Capt. Chafe or Chafing with us, is when any Rope is gauled or fretted, or when any Rope rubs against any thing.

*A Ship of
Charge.*

Adm. What do you mean by a Ship of Charge?

Capt. By a Ship of Charge, is meant a Ship that draweth much Water, that is, that swimmeth deep in the Sea, and sometimes an unweildy Ship, that will not wair nor steer, is termed a Ship of Charge, because she is a Ship of Danger; but besides both these Acceptations, every Officers peculiar Place in a Ship, is called his Charge.

Adm. Since you are again fallen upon the generality of Sea-phrases, tell me what the Extent of the Sea-word Chafe is.

Capt.

Capt. To pursue a Ship at Sea, *To chase,* is to chase her; that which is called a Stern-chase, is when the Chaser followeth the Chased a-stern, directly upon one Point of the Compass. To lye with a Ships fore-foot in a Chase, is to go and sail the nearest way to meet with her, and so to cross her in her way. The Chase Guns in a Ship, are those which lye right aft. When it is said that a Ship hath a good Chase indefinitely, it is meant of her Chase forwards on, and that is, when she is so built, that she can carry many Guns to shoot right forwards; and when the Guns lye just so to the contrary, they say that she hath a good Stern-chase.

Adm. What is that they term the *Clew Gurnet.* Clew Gurnet?

Capt. It is a Rope made fast to the Clew of a Sail (of which Clew we spake before) and from thence runs in a Block which is seized to the middle part of the Yard, and the use thereof, is to farthel up the Main-sail, and Fore-sail.

Adm. What difference is there between this Clew Gurnet and the Clew line?

Clew-line. *Capt.* The Clew-line is the same to the Top-fails, Top-gallant-fails, and Sprit-fails, that the Clew-garnet is to the other, and is of the very same use.

Deep Sea-line. *Adm.* What Line is that you call the deep Sea-line?

Capt. It is a small Line, wherewith to sound when the Ship is in very deep water at Sea, and then they desire to find ground, that so, without sight of Land, the Coast may be known that they approach unto; to which end, they have a Lead also, called the deep Sea-lead, wherewith this Line is carried to the bottom, and upon the lower and bigger end of the Lead, there is white Tallow laid, the which bringeth up with it the Ground that it falleth upon, and by the differences of the Ground, and Observations made thereupon, it is known upon what Coast the Ship then is; and if at any time it fall out that no Ground cometh up upon the

Tal-

Tallow of the Lead, they hereby know that the ground there is Oazie Ground, and then they put a white woollen Cloth upon the Lead, with a little Tallow, whereby this kind of Ground is brought up also.

Adm. What call you Oazie-ground? Oazie-ground.

Capt. Oaze or Oazie ground, is soft, slimy, muddy Ground, being no good ground for a Ship to ride at an Anchor, by reason that the Anchors cannot hold firm, but will come home (as the Phrase is) in great Stresses, that is, foul Weather; and besides this Oazie Ground is held bad for the rotting of Cables, only it is good to bring a Ship aground on, when she is to lye so long; because she will lye easie and soft, and will soon dock her self in it; but yet withal, it is bad for the rotting of her Plancks, and the spoiling of her Okam in her Seams.

Adm. What mean you by a Ships docking of her self? To Dock her self.

Capt. Of Docks, there are two Docks. kinds, a dry Dock, which is made with Flood-gates to keep out the Tide; and in these dry Docks are Ships

Ships built and repaired, and therein they sit without all Danger ; the other is called a wet Dock, and this is any Creek or Place wherein a Ship may be carried out of the Tides way, and layed on Oazie Ground ; in which Ground, when a Ship hath made herself a Place to lye in, the Phrase is, that the Ship hath docked herself.

Cradle.

Adm. What is that you call a Cradle in your Sea-language ?

Capt. It is a Frame of Wood or Timber, brought and raised alongst the outside of a Ship by the Bildge ; and it serveth to launce a Ship with better security ; and in some Parts, some great Ships, for safety sake, are trimmed in these Cradles.

Launce.

Adm. What intend you by the VVord Launce ?

Capt. This VVord on Ship-board, is used instead of put out ; as to launce a Ship out of the Dock, or out of the Key, is to put it out from those places where it is laid dry into the Channel or Sea, that so it may float, that is, swim ; Sea-men also say, launce the Boat, launce out, or in the Da-

Davitt, and launce out the Capstan Bars ; all which is as much as to bid them to be put out. And in another Sence, when a Yard is hoised up high enough, or the Top-mast, they say launce ho, that is, hoise no more ; also in the Stowing (that is, laying in) of any thing into the Hold of the Ship, they say, launce aft, or launce forwards on. Likewise when they would have any men brought from pumping, and that the Pump sucks, they then cry, launce ho, that is, pump no more.

Adm. VVhen you spake of Sails in general, you forgot to tell me what a Drift-sail was.

Drift-Sail,

Capt. And I might well do so (my Lord) for this is a Sail under VVater, as those were above, and it hath Sheats fastned unto it as other Sails have ; and it is by them veered out right a head upon the Sea in a Storm ; and the use is to keep a Ships head right upon the Sea, that is, the Billow of the Sea. It is also useful when a Ship drives with a Current to hinder her driving, and is generally used by Fishermen.

Adm.

Drive.

Adm. VVhen is a Ship said to drive?

Capt. VVe say a Ship drives, when an Anchor being let fall, it will not hold the Ship fast, but that she falls away with the Tide or VVind, for which, the best help is to veer more Cable ; also when a Ship is a Hull or a Trie, we say she drives to Lee-wards, or drives in with the Shore.

Tides.

Adm. To understand this Passage the fuller, I desire that you would speak somewhat of Tides in general ; as also that you tell me here in this place, what those Sheats are you mentioned even now, the which you said the Drift-sail, as well as all other Sails, have belonging unto them, and of which you have not said any thing in particular hitherto.

*Windward Tide.**Leeward Tide.*

Capt. The VVord Tide is common, as well to ebbing as flowing, and the Phrase is, as well Tide of Ebb, as Tide of Flood. A VVindward-tide is, when the Tide runs against the VVind ; a Leeward-tide is, when the Tide and VVind go both together. A Tide-gate, is when the Tide runs strong.

strong. To Tide it over, or up into any *Tide-gate.*
Place, is to go with a Tide of Flood
or Ebb, and to stop the contrary
Tide at an Anchor, until the same
Tide returns. To flow Tide and half
Tide, is when the Tide doth run
three hours (which is four Points)
in the Offin, longer than it doth by
the Shore; where by longer, is not
meant more Hours (for it doth al-
ways constantly ebb and flow six
hours) but the meaning is, that if it
high VWater at the Shore at twelve
of the Clock, it shall not be high
VWater in the Offin until three of the
Clock, which is the Bound and time
for the running of a half Tide; and
so accordingly, as it ebbs and flows
more, the Sea-men say, it runs half
Tide and half quarter, that is, five
Points. VWhen Sea-men are to go into
a Harbour, over a Bar or Sand, the *Bar.*
Saying is, that they will bring their
Tide with them, that is, they will
come in with the Flood, that so they
may get over the Bar or Sand into the *Sand.*
Harbour (and this Bar is a Rock, this
Sand a Shelf, which is not to be sailed
over, but upon the Flood.) *Adm.*

Points.

Adm. You spake even now of Points, I pray tell me how this VVord Point is any way taken in your Sailing-sayings, and then proceed, and tell me of your Sheats.

Capt. The sharpness of any Headland is called the Point of the Land; and where they say, that two Points are one in another, it is as much as that they are so just in a right Line one against another, as that the one cannot be seen for the other. The Compass also is divided into thirty two Points, representing thirty two VVinds; and sailing by the Compass, is sailing upon a Point. The VVord Pointing is also used, when the Strouds at the end of a Cable (that is, the several Twists thereof) about two foot long from the end thereof are untwisted; therewith to make Sinnet of the Rope-yarn, and then to lay them one over the other again, breading it lesser and lesser towards the end, and then at the very end to make them all fast together, with a piece of Marlin or the like; and this is termed pointing of the Cable, and the

the use thereof, is to keep the Cable from Feazing, that is, ravelling out; *Feazing.* but chiefly, that none of the end be cut off and stolen away.

Adm. I pray tell me what this Mar- *Marlin.* lin is, and then speak of your Sheats.

Capt. Marlin is a small Line, made of untwisted Hemp, that so it may be more gentle and pliant than other Lines; and the use (as aforesaid, is) to seize the ends of Ropes from falling out: they use also to seize the Sides of the Straps at the Arse of the Block (that is the lower end thereof:) with this also, if a Sail be ript out of the Bolt-rope, so that they cannot sew it in again, they take of this Marlin, and with that, put thorow the Eye-let-holes, they make fast the Sails to the Bolt-ropes, and this is called marling the Sail.

Adm. Well, now tell me what *Sheats.* your Sheats are.

Capt. The Sheats are Ropes bent to the Clews of the Sails, and in all the low Sails, they serve to hale aft, or round of the Clew of the Sail; but

*Flat in the
Sail.*

*Ease the
Sheat.*

*Let fly the
Sheat.*

*A false
Sheat.*

but in Top-sails they serve to hale home, that is, to hale close the Clew of the Sail to the Yards-arms; when they hale aft the Sheats of the Main-sail, it is to make the Ship to keep by a Wind; when they hale aft the Sheat of the Fore-sail, it is to make her fall off from the Wind; when a Ship will not fall off from the Wind, they flat in the Fore-sail, that is, pull the Sail flat by the Sheat as near unto the Ships sides as may be; when they say, Ease the Sheat, it is to vere it out, or to let it go out gently; to let fly the Sheat, is to let it run out violently as far as it can go. In extraordinary Gusts, and very stiff Gales, they use to bind another Rope to the Clew of the Sail above the Sheat-block, and this is done to succour and ease the Sheat, least it should break, and this Rope is termed a False-sheat, and this is only used to the Main and Fore-sails. Those Plancks also under water, which come alongst the Run of the Ship, and are closed to the Stern-post, are also called Sheats; and that part likewise within Board abaft, in the Run

Run of the Ship, is called the Stern-
sheats. The Word of Art is, when they
would have the Sheats of the Main or
Fore-sail haled aft, Tally the Sheats.

*Stern-
Sheats.*

*Tally the
Sheats.*

Adm. VVhat doth the VVord
Duck up imply in your Sea-sence?

Duck up.

Capt. This Term (my Lord) is
used promiscuously with the Clew
of the Main-sail, Fore-sail and
Sprit-sail; and when any of these
Sails hinder his Sight that is at the
Helm, so that he cannot see to steer
by any Land-mark or the like, the
VVord then is, Duck up the Clew-
lines of any of these Sails; but it is
especially to the Sprit-sail, when a
Shot is to be made with a Chase-
piece, which otherwise would be hin-
dred with the Clew of that Sail, to
remedy which, they hale up the Sail,
and the VVord is, Duck up the Clew-
lines of the Sprit-sail.

Adm. VVhat implies your VVord
Flair?

Flair.

Capt. It implies the contrary Ex-
tream, or mis-shaping, to that of
Housing in, formerly mentioned, and
it is, when a Ship is somewhat housed

in near the VVater, and a little above that, the VVork again hangs over too much, and so is laid out broader aloft than due Proportion alloweth; in this case the Saying is, the Work doth Flair over.

Flown-Sheats.

Adm. What mean you when you say the Sheats are flown?

Capt. When any of the Sheats are not haled home and close to the Blocks, the Saying is, the Sheats are flown; and so it is said, the Ship sails with Flown-sheats; but when it is said, let fly the Sheats, it imports as much, as let them go out amain.

Free the Ship.

Adm. Since we are fallen upon your Words of Sea-art, what mean you by the Word, Free the Ship, or free the Boat?

Capt. When a Ship hath much water in her, it is said that the Pump will free her, that is, that she leaks not in so fast, but that the Water may be thrown out faster by the Pump; and on the contrary, when they say the Pump cannot free her, it implieth the quite contrary. Also the bailing (that is, the casting of any water out

of

of the boat) into the Sea, is termed, freeing of the Boat?

Adm. What is that you call a Fresh-*Fresh Shot.* shot?

Capt. When any extraordinary Land-waters come down a River on the suddain, or when any great Rivers fall down into the Sea, so that the Salt-waters become fresh withal, a good way of into the Sea, at the Mouth of that River; this is called a great or a small Fresh-shot, as the freshing of this Water is found more or less.

Adm. Which call you the Fore-foot *Forefoot of a Ship.* of a Ship?

Capt. A Ship hath no such part in her, but it is only a Word in use, when two Ships being under Sail in ken one of another, the one of them doth lye in her Course, with her Stem so much a-weather the other, that holding on their several ways, and neither of them altering their Courses, that Ship which lyeth thus to the Weather, that is, to the Windwards, will run or go out a head of the other, and then they say, that

Gone out a head. such a Ship doth lye with the others Fore-foot. And as soon as she is once past before her head, it is no longer said that she is past by her Fore-foot, but that she is gone out a head. So that this Word Forefoot implieth no more, but one Ship lying or sailing across another Ships way.

Adm. What are those you term *Fore-locks.* Fore-locks?

Capt. They are little flat pieces of Iron, made wedg-like, and they are used at the ends of Bolts, where they are put into those Holes, to keep the Bolts from flying out. They are also used to keep down fast the Cap-squares of the Carriages for the Guns, of which we shall speak particularly when we come to speak of the Guns belonging to Ships, together with their Appurtenances.

Adm. What mean you by your *Fore-reach.* Sea-word Fore-reach?

Capt. When two Ships sail together, she which saileth best, and so outgoeth the other, is said to fore-reach upon the other.

Adm.

Adm. When call you a Ship *The Ship is*
foul? *foul.*

Capt. When a Ship hath been long untrimmed, so that any Filth, or Grasse, or Weeds, or Periwinkles, be grown and stick upon her sides under water, she is said to be foul; but this word is also used in another sence, for when any rope that is to be haled is hindered by another, or tangled in it self, so that it cannot run, it is said, that the Rope is foul.

Adm. When is a Ship said to found- *Founder.*
der?

Capt. When either by an extraordinary Leak, or by any great Sea (that is, Billow or Wave of the Sea) breaking in upon her, a Ship is so filled with water, that she cannot be freed of it, nor is able to swim under it, so that she sinketh with the weight thereof; in this case a Ship is said to founder in the Sea, or that she is foundred.

Adm. What call you foul water in *Foul-water.*
your Sea-tongue?

Capt. Whensoever a Ship being under Sail, comes into so shole or shallow
P 3 water,

water, that she raiseth the Mud or ground with her way (and this she may do, and yet not touch the Ground but only by coming near unto it) it is then said, that she maketh foul water.

Adm. In what sence use you the word Gage?

Gage.

Capt. When the bigness or capacity of any Cask is upon a tryal, that is called Gaging of the Cask; or when it is to be known how much of the Liquor in any Cask or Butt is leaked out, it is said, Gage the Cask: Also, to know how much water a Ship draws, or of what Draught a Ship is, they use to strike a Nail into a Pike, and so to put it down by the Rudder, until this nail do catch hold under the Rudder; and this also is termed the Gaging of a Ship; and so many feet of water as the Ship draws, is called the Ships Gage. Likewise, when one Ship is to the Weather of another, she is said to have the weather Gage of her.

Draught.

Adm. What is that you here call the Draught, and the drawing of a Ship?

Capt.

Capt. By Draught, is meant so many feet in depth of water as a Ship must have to make her float or swim; so that a Ship is said to draw much water when she goes deep in the Sea, and a Ship of small Draught is on the contrary.

Adm. How is the word Gale taken *Gale.* with you Sea-men?

Capt. When the Wind blows not too hard, so that a Ship may bear out her Top-sails a Trip (that is, hoisted at the highest) it is called, according to the strength of it, a Loom-gale; when it blows much wind, it is named a stiff and strong Gale, or at the least, a fresh Gale. Sometimes, when two Ships being at Sea, and not far asunder, and little wind blowing, one of them will find more wind than the other, and then they will say of the Ship that hath most wind, that she doth gale away from the other. When it overblows so violently, that it is not possible to bear any Sail, and is withal, a Wind mixed with Rain or Hail, Sea-men term this a Tempest, and they account it a Degree higher than a Storm. *Tempest. Storm.*

Garnett.

Adm. What is that you call the Garnett?

*A Gird-
ing-girt.*

Capt. It is a Tackle wherewith is hoised in all the Cask and Goods that be not over weighty ; and this as the former Tackle that we spake of, hath a Pendant coming from the head of the Main-mast, with a Block strongly seized to the Main-stay, just over the Hatch-way, where the Goods are taken into the Hold ; and in this Block is reeved the Runner, which hath a Hook at one end, in which is hitched the Slings ; and at the other end is a double Block, wherein is reeved the fall of the Runner, and so by it is haled and hoised in the Goods, and when there is no occasion to use this Garnet, it is fastned alongst by the Stay, at the bottom of the Ship.

Adm. What mean you by a Girding-girt?

Capt. When the Cable is so taught (that is strained) that upon the turning of the Tide, the Ship cannot go over it with her Stern-post, she will then lye across the Tide, and then the Sea-word is, that the Ship is girt, or hath a Girding-girt.

Adm.

Adm. What kind of Sail is that ^{Goose-} which you term a Goose-wing?

Capt. When a Ship saileth before a Wind, or with a quarter Wind, and in a fair and fresh Gale, many times upon occasion, to make the more hast, they use to unparrel the Miffen-yard, and then to launce out both Sail and Yard over the quarter on the Lee-side, and fit Guyes at the farther end, to keep the yard steddy with a Boom, and this booms out the Sheat of the Miffen-sail; and thus they give the Ship the more way, which otherwise the Miffen-sail with these Winds could not do; and this Sail thus fitted, is ^{Studding-} termed a Goose-wing, and sometimes ^{Sail.} also it is named a Studding-sail.

Adm. What are these Guyes and ^{Guyes.} this Boom? ^{Booms.}

Capt. A Boom is a long Pole, employed to spread out the Clew of the Goose-wing or Studding-sail; and sometimes also these Booms are used to the same purpose with the Clew of the Main-sail and Fore-sail, the better to catch the Wind, and is called Booming; and a Ship is also said to come boom-

booming, when she comes with all the Sails she can make ; and this booming of Sails is never used, but either in Fore-winds or Quarter-winds. Those Marks also which are fixed to shew and direct into the Channels of Harbours, are called Booms. As for the Guyes, a Guy is any Rope used to keep off any thing from falling or bearing against the Ships side, when it is to be hoisted in, as when any thing is to be haled in over the Gun-wale, it is by this Guy-Rope, gently and securely eased in ; and this Rope is commonly made fast to the Stanchions of the Mast-trees. There is also a Rope made fast to the Fore-mast, at the one end thereof, and is reeved thorough a single Block, which is seized to the Pendant of the Winding Tackle, and so reeved again thorough another, which is seized to the Fore-masts, and this is to hale forward the pendant of the Winding-Tackle, and is termed a Guy also.

Haling.

Adm. What is haling at Sea ?

Capt. That which is commonly called Pulling a Shore, is Haling at Sea ;
but

but the Haling of a Ship is taken also in another Sence ; as to call unto her, to know whence she is, and whither bound ; sometimes also Ships are haled by way of Salutation, and this is done both with Whistles, Trumpets and Voices.

Adm. How do you use the Word Hand or Handing ?

*Hand or
Handing.*

Capt. When they would deliver away any thing to be passed from one to another, or to be brought to any one, the Sea-saying is, hand it this way or that way ; and when they want men to hoise or to do any Labour, they use to call for more Hands, not more Men.

Adm. Of the Hawses I well remember you have spoken already ; but what is that you term a Hawser ?

Hawser.

Capt. It is a three Stroud Rope, and may be held to be a little Cable, and it doth serve for many uses, as to warpa Ship over a Bar, with the like ; and with this kind of Rope, the Main and the Fore-throwds are made fast.

Adm. You speak of Handing but now ; but what mean you by heaving ?

Capt.

Heaving.

Capt. The Word is diversly taken; for to throw away or fling away any thing over-board, is termed the Heaving of it over-board: the turning about of the Capstan is also named Heaving at the Capstan; likewise, when a Ship doth rise and fall by the force of the billow, being at an Anchor, she is said to heave and set.

A Head-Sea.

Adm. What is a Head-sea?

Capt. It is when a great billow or wave of the Sea comes right a head of a Ship, being in her Course.

Head-Sails.

Adm. Which are the Sails, you term Head-sails.

Capt. Those Sails which belong to the Fore-mast, and Sprit-sail, Top-sail, Top-masts, are properly called the Head-sails; for these are the Sails which govern the head of the Ship to make it fall off, and to keep out of the Wind; and these Sails in quarter Winds are the chief drawing Sails.

A Horse.

Adm. What Sea-beast is that you term a Horse?

Capt. A Horse at Sea, is a Rope made fast to one of the Fore-mast Shrowds,

Shrowds, with a Dead-mans-eye at the end thereof, through which is reeved the Pendant of the Sprit-fails sheats; and it is for no other use, but to keep the Sprit-fail sheats clear of the Flouks of the Anchor: Also when the Lead is heaved out at the Shrowds, there is a Rope made fast to the Shrowds, to preserve him that heaveth it from falling into the Sea; and this also is termed a Horse: The Wapp ^{Wapp.} likewise (that is that wherewith the Shrowds are set taught) hath the same Name; as also those little short Wapps which are seized to the midst of the Top-mast, and Top-gallant Stay, wherein are reeved the Top-fail and Top-gallant Bowlings, are called Horses.

Adm. What is that, which is termed the Hullock of a Sail? ^{Hullock of a Sail.}

Capt. It is small part of a Sail which is cut and left loose, in some main Storm, when they dare not open any more Sail, and it is only used in the Miffen-Sail, to keep the Ships head to the Sea, making all the rest of the Sail up, save a little at the Miffen-Yards

Yards Arm : As also, when a Ship will not Weather-Quoil, then to lay her head the other way, there is loosed (for that is the Word) a Hullock of her Fore-sail, and then changing the Helm to the Weather side, the Ship is made to fall off and to lay her head, where her Stern lay before.

Weather-coiling.

Adm. I pray tell me first, what Weather coiling is, and then give me Words of Art, which properly belong to the Miffen-sail, Mast, and Yard.

Capt. The Weather-coiling of a Ship, is, when being a Hull, her head is brought the other way, to that she lay before, without loosing of any Sail, but only by the bearing up the Helm : As for our Sea-words belonging to the Miffen, in propriety, it is to be understood, that when at Sea we speak of the Miffen, it is allways meant of the Sail, not the Mast; as set the Miffen, that is fit the Miffen-sail, change the Miffen, that is, bring the Yard to the other side of the Mast : Peek the Miffen, which is, to put the Yard right up and down by the Mast;

Set the Miffen.

Peek the Miffen.

spell

Spell the Miffen, that is let go the Sheat, and withal peek it up : And the use of this Sail is to keep the Ship close to a Wind : and if a Ship gripes too much they use not any Miffen : Sometimes the Miffen is used, when the Ship is at an Anchor, to keep her a Stern from coming foul on her Anchor upon the turnings of the Tide ; and sometimes they trie with the Miffen.

Adm. You spake of the Jeer-capstan sufficiently before ; and named only the Jeer-rope, and therefore I pray according to your promise then, tell which it is now.

Capt. It is a piece of a Hawser, made fast to the Main-yard and Fore-yard close at the Ties of great Ships, (for small ones have them not) and so is reeved through a Block, which is seized close to the Top, and so comes down, and is again reeved through a Block at the bottom of the Mast, close by the Deck ; and great Ships, have one on the one side of the Ties, and another on the other ; and their use is, to help to hoise up the Yard ;
and

and especially to succour the Ties, and to keep the Yard from falling down, if the Ties should break.

*Knave-
line.*

Adm. Have you not a line, called the Knave-line?

Capt. Yes my Lord, and with which (for the Name sake) they make good sport, with Fresh-water Men; and it is a Rope, the one end whereof is fastned to the Cross-trees, under the main or Fore-top, and so cometh down by the Ties, to the Ram-head, unto which there is seized a small piece of a Billet about two Foot long, having a hole in the end thereof, in which hole this line is reeved, and so brought to the Ship-side and haled up taught there to the Rayls; and the use of this Knave-line is, to keep the Ties and Hallyards from turning about one the other; the which, at the first, being new they would do, were it not for this line; but after that the Halliards and Ties are stretched awhile, this line is quite taken away, and no more used, but upon the like occasion.

Adm.

Adm. I pray, interpret, these Sea-^{Land-fall.} words unto me, Land-fall, Land-lockt, Land-to, and Land-turn.

Capt. A Land-fall, is to fall with the Land, as when it is expected coming out of the Sea, to see Land in a short time, and it so falleth out, then the saying is, that they have made a good Land-fall; and especially if they fall right with the part that they expect, and so on the contrary. Land-lockt,^{Land-lockt.} is when being in a Rode, and especially Harbour, the Land lies so round about the Ship, being at an Anchor, that no one point lieth open upon the Sea; and then the saying is, that the Ship Rides Land-lockt. Land-to,^{Land-to.} is, when the Ship is just so far out at Sea as Land may be kenned; as when Instruction is given by a way of a Rendezvous or meeting, to lye off at Sea upon such a heighth, over against such a Cape (that is Head-land) Land-to, the meaning here is, to lye so far out to Sea, as the Land or Cape may be kenned, that is discerned; and neither farther off nor nearer: As for Land-turn,^{Land-turn.} it is the same of the Land,
Q that

that Brize is of the Sea ; only differing in this, that the Land-turn cometh by Night, and the Sea-turn or Brize by Day.

A Brize.

Adm. What is properly a Brize ?

Capt. It is a Wind of Course, the which at Sea, is always found to come off the shore in fair Weather in hot Countries ; and it commonly begins to blow temperately, about nine of the Clock in the Mornings, and endeth at four in the afternoon.

To lay a Land.

Adm. What is it, to lay a Land ?

The Land is shut in.

Capt. When Sea-men are out of sight of Land, the saying is, the Land is layd : but when any other point of Land hinders the sight of that they came from, then the Word is, that the Land is shut in, or shut into the other point.

Adm. Let us return a little, from Sea-words, to Sea-ropes ; what is that you term the Leefang.

Leefang.

Capt. The Leefang is a Rope, reeved into the Crengles of the Courses, when the bottom of any Sail is to be haled in, that so the Bonnets may be laced on ; and they serve also to take in the Sail.

Adm.

Adm. You spake of the Leetch of ^{Leech-lines.} a Sail before ; but which be the Leetch-lines ?

Capt. These are small lines, which are fastned to the Leetch of the Top-sails, for they belong to no other Sails : and they are reeved into a Block at the Yard close by the Top-sail Ties : and the use of them is, when they take in the Top sails, to hale in the Leetch of the Sail.

Adm. What Lines are those you ^{The Mart-} term the Martnets. ^{nets.}

Capt. They are small Lines fastned to the Leetch of the Sail ; and look like the Crow-feet (formerly mentioned) they are reeved thorough a Block on the Top-mast-head, and so come down by the Mast to the Deck : The Martnets of the Top-sails are in the same manner fastned to the heads of the Top-gallant Masts ; but their fall comes no farther down than the Top, when it is haled : The Phrase at their haling is, Top the Martnets. ^{Top the} Their use is, to bring that part of the ^{Martnets.} Leetch of the Sail, which is next to the Yard-arm, close up to the Yard,
 Q 2 when

when the Sail is to be Furled.

*Legs of the
Martnets.*

Adm. Which call you the Legs of the Martnets?

Capt. They are small Ropes, put thorough the Bolt-ropes of the main and Fore-sail, in the Leetch of the Sail, and are about one Foot in length; and so at either end are spliced into themselves; and these have a small Eye whereinto the Martnets are made fast with two Hitches; and the end is seized into the Standing part of the Martnets.

Lifts.

Adm. What be those you name the Lifts?

Capt. They be Ropes, which belong to the Yard-arms of all the Yards, and do only serve to Top the Yard-arms; that is, to make the ends of the yards hang higher or lower, or even, as occasion requires. As for the Top-sail Lifts, they serve likewise, for Sheats to the Top-gallant Yards, as well as for Lifts to the Top-sail Yards: And the word of Command in hal-ing of them, is, Top the Lifts; as Top them a Starboard, or Larboard-lift.

*Top the
Lifts.*

Adm.

Adm. Since you are in speech of ^{Log-line} Lines, what is that you call the Log-line, and wherefore serves it?

Capt. Some call this a Log-line, some a Minute-line; and these names ^{Minute-line} are given it, because it hath a piece of a small Board fastned unto the end thereof, which with a piece of Lead is so poysed, that it will always flote edge-long in the Water; and this Board is called the Log: And the use ^{The Log.} thereof, is, that the Ship being under Sail, this Log, with this Line is heaved over the Stern of the Ship (the Line having at every Fathom of length, certain marks fastned into it) and by judging how many Fathom of Line runs out in a Minute of an Hour (which Minute is measured by a Minute Glas) they would give a judgment, how many Leagues the Ship doth run in a Watch whilst she continueth making of such way.

Adm. What call you a Watch at ^{A Watch} Sea?

Capt. At Sea all the Ships Company, is divided into two parts; the one is called the Starboard Watch, the other

other the Larboard : And each of these are in their turns to Watch ; as also to trim the Sails, to Pump and to do the like Duties, for four hours space, and then the other Watch is to relieve them, for four hours more ; so that the time of a Watch when the Ship is at Sea, is the space of four hours of time. But when the Ship is in Harbour or in a Rode, they use to Watch Quarter Watch, and that is when one Quarter of the Ships Company do Watch together ; and so they allow themselves the larger Rest ; as having less to look after : And of these Watches, the Master is the Chief of the Starboard, and his right hand Mate (that is his Mate, who hath his Cabbin on the right side of the Masters Roundhouse) is Chief of the Larboard Watch.

*Quarter
watch.*

Loof-hook.

Adm. What is the Loof-hook ?

Capt. It is a Takle with two Hooks ; the one whereof is to hitch into the Cringle of the Main and Fore-sail ; the other is to hitch into a Strap, which is spliced into the Chest-tree, and so down the Sail ; and the use of it

it is to succour the Tackles in a large Sail, that all the force and stress may not bear upon the Tack; and it is also used, when the Tack is to be the surer seized.

Adm. What Rope is that you term a Parbuncle? *A Parbuncle.*

Capt. It is a Rope which is used in the nature of a pair of Slings, and it is seized together at both ends; and so put double about any ponderous thing, to hoys it into the Ship therewith; and the Hook of the Runner is hitched in it to hoys it by.

Adm. What is this Runner? *Runner.*

Capt. It is a Rope which belongs to the Garnet, and the two bolt Tackles, to that before which comes in the aftward most Shrowds of the Fore-mast; and to that Tackle abaft which comes in the Fore-mast Shrowds of the Main-mast. It is reeved in a single Block, which is seized to the end of a Pendant, and hath at the one end, a Hook to hitch into any thing; and the other end a double Block, wherein is reeved the fall of the Tackle, or the Garnet, which doth purchase more than the

*Over-hale
the Runner.*

Tackle or Garnet could do without it. The word of Sea-direction here, is; over hale the Runner, that is, to pull down that end which hath the Hook in it, and so to hitch it into either the sling or any the like.

A Passarado.

Adm. What mean you by a Passarado?

Capt. A Passarado is any Rope wherewith is haled down the Sheat Blocks of the Main and Fore-sails, when they are haled aft the Clew of the Main-sail to the Cubbridge head of the Main-mast; and the Clew of the Fore-sail to the Cat head; and this is done only, when the Ship goeth large.

Plats.

Adm. What Ropes be those you call Plats?

Capt. They are flat Ropes, made of Yarn, layd one over another, and are for to save the Cable in the Hawse from gauling: They are used also in the Flouks of Anchors, to save the Pendant of the Fore-sheat from gauling against the Anchor.

Rare-lines.

Adm. Which term you the Rare-lines?

Capt.

Capt. They are those Lines, with which are made the Steps Ladder-wise, whereby to ascend the Shrowds, and Puttocks, as likewise the Top-mast Shrowds in great Ships; and these are named the Rare-lines of the Shrowds.

Adm. Which call you the Smiting Line? *Smiting-line.*

Capt. It is a small Rope, made fast to the Miffen-Yard-arm below by the Deck; and when the Miffen-sail is furled up, this line is made up with it, to the upper end of the Yard; the Sail being made up with Rope-yarns; and so it comes down to the Poop. And the use thereof is to loose the Miffen-sail without Striking down the Yard; for by hard pulling of this Rope they break all the Rope-yarns, and so the Sail falls down of it self: and hence this Line taketh its Name: and so the Word of Art, is, smite the Miffen, that is, pull by this Rope, that the Miffen-sail may fall down.

Adm. You have often spoken of *Standing parts.*
the Standing parts of running Ropes,
as likewise of Standing Ropes; but I
forgot

forgot to enquire what these were, and how they might be distinguished, until now.

Capt. These Standing parts of running Ropes, are those parts of them which are fastned to any part of the Ship; and so are not to be haled by: As the Standing part of the Sheat, is that part which is made fast by a clinch into a Ring, at the Ships Quarter, and so of the rest: as when Sea-men say, Hale the Sheat, it is meant only of the Running part; but if they say, over-hale the Sheat, then they hale upon the Standing part; and the like is done with all other Tackles and running Ropes. As for the Standing Ropes, they are counted all those Ropes, as are not used to be removed, or to run in any Blocks; but are only set taught or flake, as occasion requires; as the Sheats, Stays, Back-stays and the like.

*Standing
ropes.*

Adm. What properly are those you term Top-ropes?

Top-ropes.

Capt. They are those Ropes wherewith the Top-masts are settled or struck lower; and they belong
to

to the Main, and Fore-top-masts; and are reeved thorough a great Block, which is seized (that is fastned) under the Cap, on the one side thereof, and then reeved through the heel of the Top-masts, into a brass Shiver, which is placed athwart the Ship; and so brought up, and made fast on either side of the Capp, with a Clinch unto a Ring which is made fast unto the Capp; and the other part comes down by the Ties, and so is reeved into the Knight, and so to the Capstan, when they heave upon it.

Adm. When you described what the Jeer-Capstan was, you made mention of a certain Hawser named the Violl; and promised to speak more thereof, when you came to speak of Ropes; I pray therefore do so now. *The Violl.*

Capt. When the Main-capstan is not able to purchase in the Cable, by reason that the Anchor is let fall into such stiff Ground, as that they cannot wey it; then for more help, they use to take a Hawser, and open a Stroud thereof, and so put in Nippers. *Nippers.*
pers,

pers, (which are small Ropes with a small Truck at one end, and with them they bind fast this Hawser to the Cable; and then they bring it to the Jeer-Capstan, and heave upon it: and this Work is termed the Violl, and will purchase far more then the Main-Capstan can: And this Violl is fastned together at both ends with an Eye and a Wale-knot, or else with two eyes seized together.

Sea-yoke.

Adm. What is your Sea-yoke?

Capt. When the Sea is so rough, or as Seamen term it, grown, that Men cannot govern the Helm, with their Hands, then they seize two Blocks to the Helm on each side one, at the very end thereof; and reev-ing two small Ropes (called falls) thorough them, which are fastned to the Sides of the Ship, and so having some Men at each Tackle, they thus govern the Helm as they are directed. There is also another way to this purpose, and that is, by taking a double turn about the end of the Helm with a single Rope; the which
being

being belayd fast to the Ships-sides, they herewith guide the Helm; and either of these ways, are termed a Yoke to Steer by.

Adm. What Ropes are those which *Trusses* you name Trusses?

Capt. They are Ropes made fast to the Parrels of the Yards, and are employed in two several Services; to bind fast the Yard to the Mast, when the Ship rowls either a Hull or at an Anchor; and to hale down the Yards in a storm or gust: And these belong to the Main-yard, and Fore-yard, as also to the Miffen; and are all brought too, upon occasion.

And thus my Lord, I have summed up, and explained, all the parts (or at least as many as are most of note) belonging to the Hull of a Ship, as also, all her Masts, Sails, Yards, Ropes, and general Rigging. It only resteth, that I speak briefly, of the Anchors belonging unto a Ship, and the parts proper unto them; as also of her Boats, and their Furniture; and likewise of her Ordnance and the Appurtenances; and lastly
will

will conclude with some proper Words of Art, which hitherto have been omitted; no occasion having formerly fallen out, to introduce them.

Adm. I heartily thank you; I pray proceed, and in the first place, make mention of Anchors, and of their kinds and parts.

Anchors.

*Anchor-
parts.*

Capt. What an Anchor is, and wherefore it serves, is as generally known as a Ship : The Parts of an Anchor, are the Ring, whereto the Cable is fastned : The Nut, the Eye, the Head, the Beam, or the Shank, which is the longest part of the Anchor : The Arm, which is the part whereto the Flouk is set : The Flouk, which is the broad part of the Anchor, which takes hold on the Ground; and which also is termed the Palm of the Anchor; and the Stock, which is that piece of Wood which is fastned unto the Beam, hard by the Ring; and this Stock serveth to guide the Flouk of the Anchor, that it may fall right to fix it self within the Ground. And these are the parts belonging un-
to

to every Anchor. The kinds of Anchors, are, the Kedger, the Grapnel, the Stream Anchor : The first, second, and third Anchor ; two of which are carried at the Bow of the Ship, and thereupon are called, the first, or second Bower ; and the other, which is the greatest of them all, is termed the Sheat Anchor ; and is their last Refuge, when in extremity of Weather, they are forced to Ride on a Lee-shore.

Adm. What kind of Anchor is that you named a Kedger ?

Kinds of Anchors.

Capt. When a Ship is brought either up or down in a narrow River, the Wind being contrary to the Tide, and she to go with the Tide ; the way is to set the Fore-sail, and Fore-top-sail, and the Mizen, and so to let the Ship drive with the Tide, that so they may flat her about : And if she happen to come over near the shore ; they then employ a small Anchor in the head of the Boat, with a Hawser made fast unto it, which comes from the Ship ; the which Anchor is let fall in the midst of the Stream, and so they

Kedger.

they Wend, (that is turn) her Head about; the which done, they lift up the Anchor again when, she is fully about : And this Anchor is termed a Kedger, and this Working, is called to Kedge, or Kedging.

Grapnel.

Adm. What Anchor is that, you named the Grapnel?

Capt. These are a kind of Anchors for Gallies, or Boats to Ride by; and thus far differ in form, from the other, that they have four Flouks, whereas the other have but two; and are without Stocks. In Ships of War these Grapnels, those of the lighter sort of them, are used to be thrown into an Enemies Ship, wherewith to Catch hold of some of her Gratings, Rails, Gun-wales, or the like, and so having a Chain made fast unto it, they lash (that is make fast) the Ships together, that so they may board the Enemy or Prize. There are also some other Grapnells with three Hooks or Flukes, with which they use to sweep for Hawes, or small Cables.

Sweep.

Adm. I pray before you go on to speak farther of your Anchors, expound

pound the Words, Sweep, and Board, as they are taken in your Sea-phrafe.

Capt. Sweeping in this sense, is nothing else, but when this three Flouked Grapnel, is hung over the Boats Stern, and so let down into the Sea, or Channel; and by the Rowing of the Boat, is dragged upon the Ground up and down, to find some Cable or Hawser, slipped from an Anchor, to which no Buoy was fastned. As for *Board.* the Word Board it is various used at Sea; to go aboard a Ship is to go into a Ship: Board and Board is, when two Ships touch one another: The Weather Board, is that Side of a Ship which is to the Windwards: To make a Board or to Board it up to a Place, is to plie it to the Windwards (that is to turn it up) sometimes on one Tack, sometimes on another. A good Board is, when a Ship at one turning, or Tack, hath advanced much to the Windwards: Within Board, is to be within the Ship; without Board, to be without it: Over-board, is to fall, or be thrown into the Sea: By the Board, is to slip down by the Ships
R Side:

Side : To leave a Land on Back-board, is to leave it behind the Ship.

Adm. Before you leave this passage, you must explain the Sea-acceptation of the Word Channel; and tell me what a Buoy is.

Channel.

Buoy.

Stream the
Buoy.

Buoy up a
Cable.

Capt. By a Channel is meant the deepest part of any River, Arm of the Sea, or Harbours mouth; sometimes also, some narrow Seas are termed Channels, as that betwixt us and *France*; and that which is named *St. Georges Channel*, betwixt *Wales* and *Ireland*. A Buoy, is that piece of Wood, Barrel or the like, which is layd to flote directly over the Anchor, when the Anchor is at the bottom of the Sea; that so the men that go in the Boat to wey the Anchor, may directly know where the Anchor lieth. And the Words of Art, belonging to this Piece, are, to stream the Buoy, that is, to let the Anchor fall whilst the Ship hath way: Buoyant, is any thing that is floting or apt to flote. To Buoy up a Cable, is to make fast some peice of floting wood, Barrel, or the like, unto the Cable, somewhat

somewhat near to the Anchor, that so the Cable may not touch the Ground, when the Ground is suspected to be foul, (that is rocky) for fear of fretting and cutting of the Cable. Buoys also are sometimes left out at Sea, to serve for marks, to discover some dangerous Shelves or Rocks.

Adm. Well now return to your ^{Stream-An-} Anchors again, and tell me what a ^{chor.} Stream-Anchor is.

Capt. It is only a small Anchor, made fast to a Stream Cable, wherewith to Ride in gentle Streams and in fair Weather, when they would stop a Tide.

Adm. What are your Words of Art belonging to this Anchoring business?

Capt. When the Cable hangs perpendicular betwixt the Hawse and the Anchor, then the Anchor is said to be a ^{A-Peek.} Peek, when it hangs right up and down by the Ships-side, its said to be a Cock-bell, upon the Ships coming ^{cock-bell.} to an Anchor: To let fall an Anchor, ^{Let fall an} is to put it down into the Sea: The ^{Anchor.} Anchor is said to be foul, when the ^{The Anchor} is foul.

*Fetch home
an Anchor.
The Anchor
comes home.
Shoe the
Anchor.*

*Boat the
Anchor.*

Anchorage.

Cable by the turning of the Ship, is hitched about the Anchors Flouks: To fetch or bring home an Anchor, is to wey it: The Anchor is said to come home, when the Ship drives away by the Tide or Sea: To Shoe the Anchor, is to put Boards to the Flouks, fashioned fit unto the Flouks; and this is done, when the Ground is too soft for the Anchor to hold: To Boat the Anchor, is to put it into the Boat: Anchoring or Anchorage, is to let the Anchor fall into the Sea; good Anchorage, is when the Water is not too deep; and that the Ground is good, being neither too hard nor too soft; so that the best Ground is stiff Clay, or hard Sand; and the best Riding at an Anchor, is to be Land-lockt and out of the Tide.

Adm. You spake of Tides before, but I do not remember that you then said any thing of a Spring-tide.

*Spring-
Tides.*

Capt. Indeed I did not, and it was a forgetfulness. A Spring-Tide is said to be, when after the Dead Neep-Tides, the Tides begin to grow higher: and this is about three days before the

the Full or Change of the Moon; and the top or highest of the Spring is three days after, and then the Water doth highten most with the Floud, and low most with the Ebb; and then also the Tides run much stronger and swifter, then in Neeps.

Adm. You forgot also to speak of *Neep-Tides* the Neeps until now.

Capt. I Confess that too, but shall now make amends. When the Moon is in the midst of the second and last Quarters, then fall out these Neep-tides; and these are (as it were) opposite to the Spring-Tides; and there are as many days allowed for the Neep, or falling of the Tides, as for the Spring or Rising of them: but in these Neep-Tides, the water is never so high nor so low, as in the Spring-Tides; nor do the Tides run so swift in Neeps as at the Springs; and as the highest of the Springs is three days after the Full or Change of the Moon, so the lowest of the Neeps is four days before the full or change; and then the saying is, that it is deep Neep: and when a Ship wants Water, so that

Neeped.

she cannot be brought off the Ground, or out of the Dock, the Sea-word is, that she is neeped; and the like is said when she is in a bad Harbour, so that she wanteth Water to carry her out. And now (my Lord) I have finished my Task, concerning Anchors and Tides.

Adm. Your next is to speak of all such Boats as appertain to a Ship of War, and of the appurtenances belonging to them.

Long-boat.
Skiff.
Sshallop.

Capt. The Boats requisite to a Man of War, that is a Ship of War, are, the Long-boat, the Skiff or Shallop, and the Barge.

Adm. Which is the Long-boat, and what is her peculiar Services?

Capt. The Long-boat is the strongest and the biggest of Boats that may, and are hoised in, into the Ship; and it serves for the Portage of all weighty and burdensome things, that are to be conveyed unto a Ship; as her Goods, her Victuals of all sorts, if need be, and her great Guns; as also to land her Men upon all occasions, and the like: And to her, in peculiar, belongeth

longeth her Davit, which is set over her head, with a Shiver in it, into which is brought the Buoy-rope, wherewith to wey the Anchor, which is also one main and especial part of her employment : she hath besides, (as the other Boats also have as well as herself) her Mast, and Sail, her Oars; her Tiller, which is in the Nature of *Tiller.* the Helm in a Ship : her Thoughts, *Thoughts.* which are the Seats where the Rowers sit; and her Thowls, which are *Thowls.* those small Pins, between which the Rowers put their Oars when they Row.

Adm. Wherefore serves the Skiff or Shallop, that you spake of; and what manner of Boat is it?

Capt. It is a smaller and a lighter, and so a nimbler Boat then the Long-boat ; And the peculiar employments of it, are, to Row speedily, upon all occasions, from place to place, and Ship to Ship; and it may more safely, and more conveniently be brought to a Ships Side, at Sea, when the Sea is somewhat rough, then the Long-boat can ; and in it, commonly, the

prime Officers of the Ship, use to ship themselves when they go for the Shore, being in Harbour; and sometimes at Sea, in a dead Calm, this Skiff or Shallop being well Manned with Musketeers, will make good shift to take a small Ship, that is but badly Manned.

Adm. What Boat is that you named the Barge?

Capt. Barges (my Lord) are well enough known, as being frequently in use upon every River, that leads to a Rich City; and at Sea (as well as upon Rivers) they serve rather for State and Ease, (as to carry the General, Admirals, and prime Captains) then for any other peculiar Services; Only to them in particular (besides what other Boats have) they have their Bales, and their Tilt; and generally their Seats are furnished with Carpets and Cushions.

*Barge-
Bales.
Tilt.*

Adm. What are the proper Words of Art belonging to the Boats?

Capt. In our Sea-phrases, we say, swift the Boat, which is to make fast a Rope by the Gun-wale round about the Boat, and to that, to fasten the Boat-

*Swift the
Boat.*

Boat-rope; and with this Boat-rope, which is also termed the Gift-rope, *Gift-rope.* the Boat is towed at the Ships stern; and by this swifting, the Boat is well strengthened to endure her Tow: To free the Boat, is to cast water out of *Free the Boat.* her; to Man the Boat, is to put Men *Man the Boat.* into her, and these Men are called the Boats Gang: To fend the Boat, is to *Fend the Boat.* save her from beating against the Rocks, Shore, or Ships-sides; to wind the Boat, is to turn (which they *Wind the Boat.* call winding) the Boats head about; aolt Bboat, is such an one as will *A Bolt Boat* well endure a rough Sea.

Adm. Are there no other Boats besides these belonging to a Ship?

Capt. There are usually no other Boats but these that are to be hoised in; for as for those Cock-boats, Wher- *Cock-boats, wherries.* ries, and the like, they are but seldom used, and are indeed too tender and small to do any Service at Sea.

Adm. But what other Vessels have you in use to attend great Ships at Sea upon any occasion?

Capt. Some great Ships that carry very many Men, and are not able to
stow

stow Victuals enough for them for any long Voyage or length of time, and being Men of War, are besides much loaden with heavy Ordnance, do use to be attended upon with Victual and other Necessaries, by some smaller Vessels, as either Hoys or Catches.

*Hoys and
Catches.*

Adm. What be these Hoys and Catches?

Capt. The Hoy is a small Bark that saileth not with Cross-yards, but with Sails cut into the form of Miffen-sails, and so (like Carnels, which are much in use about *Spain*) will sail nearer the Wind than any Vessel with Cross-sails can do. As for the Catch, it is a smaller Vessel than the Hoy, and yet it is so built, as that it will endure and live (as the Sea-pharse is) in any Sea whatsoever; and is with-all of very good Sail, and in that respect is very proper to attend upon great Ships, upon the Occasions and Services aforesaid. And thus my Lord, I have done also with your Boats.

Adm.

Adm. Well then, go on according to your Promise, and expresse somewhat concerning your Ships great Guns, and the Parts and Pieces belonging unto them.

Capt. Somewhat (my Lord) I shall willingly say, and especially touching those Points and Parts, which herein are used in Sea-service; for otherwise, to speak punctually and at large of all such particulars as appertain to this Mystery, would require a Treatise by it self.

Adm. I expect not you should pass beyond your Sea-bounds.

Capt. I shall forbear also to say any thing touching the kinds of great Guns, that (as I conceive) are fittest and most serviceable for Sea-fights, until I come to speak of the Choice of the best Ships of War, and for the present, shall only name the parts of a Ship wherein the Ordnance use to lye, together with the Carriages whereon they lye, and the necessary Appurtenances due unto them.

Adm. In doing thus, you do very well,

Capt.

*Where Guns
lye in Ships.*

Capt. The Parts of a Ship wherein the Guns use to lye, are those upon the Decks, on both sides of the Ship, as also in the Stern, in the Gun-room, and else where, and likewise in the Fore-castle and Cook-room; and the Square holes, thorough which these Guns lye out, are termed the Ports, of which also, we shall say more hereafter.

*A Tire of
Ordnance.*

Adm. What call you a Tire of Ordnance?

Capt. When the Deck of a Ship hath great Guns on both sides thereof, lying in a ranck from one end to the other; this is truly called a Tire of Ordnance, and some great Ships have two of these Tires, the one under the other, and the Fore and Half-decks, being also furnished with Guns, do make half a Tire, and so the Ship is said to have two Tire and a half of Ordnance.

Chase-pieces.

Adm. What Guns are those you term the Chase-pieces?

Capt. The Chase Guns in a Ship, are those which lye as well right aft, as right forwards; but when it is said in-

indefinitely, that a Ship hath a good Chase, it is meant of her Chase forwards; and that is when she is so built, that she doth carry many Guns to shoot right forwards; and to the other, they use to add the Word Stern-chase.

Chase forwards.

Stern-chase.

Adm. What is the Carriage of a piece of Ordnance?

Carriages for Ordnance.

Capt. It is that whereon the Guns are laid, or (as they term it) mounted, for the Word mounting a Piece of Ordnance, is with us (and with all Gunners) taken in a double Sense, for to put Guns upon, and in their Carriages, is termed mounting, and therefore they say, the Ships Ordnance are not mounted, when they are not laid in their Carriages; and when they are thus in their Carriages, and are to make a Shot at any Mark or Ship, they will say also, mount the Piece higher, when they find that the Mouth thereof (which is termed the Muzzle) lyeth lower than the Mark; but when they find that her Mouth lyeth too high, then the Word is, let her Mouth fall. As for the word Dis-mount-

mounting, it is used, either when a Gun is taken out of her Carriage, or is disable from use by some Shot, or otherwise.

Adm. I pray proceed to describe the Parts belonging unto a Carriage for Ship-Ordnance.

*The parts of
a Ship Car-
riage for
Guns with
all their Ap-
purtenan-
ces.*

Capt. The Parts thereof are ; the Cheeks, which are the sides of the Carriage ; the Bolts, which are Rings, whereto are fastned the Breeches and Tackles of the Ordnance ; the Cap-squires, or rather Cap-squares, which are broad pieces of Iron belonging to either side of the Carriage, and serve to lock over the Trunnions of the Piece, over which they are made fast in an Iron Pin, having a Fore-lock ; the Hooks, the Fore-locks, the Axel-tree which bears up the Carriage ; Trucks, which are the Wheels upon the Axeltree ; the Lince-pins, which keep on the Trucks ; the Beds, which are those pieces of thick Planck which lye next under the Piece ; the Coins, which are those pieces of wood made wedge-like, which serve to raise or lower the Brecch of the Piece at
plea-

pleasure. And the Breechings, which are those Ropes which lash fast the great Guns to the Ship-sides.

Adm. What other Appurtenances belong unto these Guns?

Capt. They are, the Powder, whereof there are two sorts, the Serpentine Powder, which is not corned, and the corned Cannon Powder. The Shot, whereof there are many kinds, as the round Shot, which flies farthest, but doth least hurt; the Cross-bar-shot, which is a round shot, with a Bar of Iron put thorough it; the Langrel-shot, which is framed like a Shackle, and may be shortned when it is to be put into the Piece, and will fly out at length, when it is discharged, and it hath a half Bullet, either of Lead or of Iron at each end; and Case-shot or Burrel-shot, which is any kind of old pieces of Iron, Musket Bullets, Stones, or the like, which being put up into Cases, are so shot out of great Guns, to execute upon such as shew themselves upon the Decks openly. To the use of these Guns, belong also the Ladles, which are pieces
of

of Copper put upon Staves of Wood, to convey the Powder into the Cylinder, that is, the Bore or Concavity of the Piece; but these Ladles are not conveniently used in a hot Fight at Sea, in respect as well of Danger as tediousness; but in lieu of them, they use Carthrages.

Carthrages. *Adm.* What are these Carthrages?

Capt. They are Bags made of Canvas or thick Paper, whose Diameter or bigness in breadth, is to be somewhat less than the Cylinder of the Piece that is to serve for, and withal, of such a length and breadth, as it may contain just so much Powder as is a due Charge for that Gun; and these are made upon pieces of Wood made round, and fitted to the bigness of the Bore of the Piece they are made for, and these pieces of Wood are termed Formers; also the hollow Cases, being of Latten, wherein these Carthrages are carried about the Ship, in time of a Fight, to avoid the danger of being fired by the way, may also be named Formers; to which purpose also the Budge-barrels are em-

Formers.

Budge-Barrels.

employed, which are small Barrels, having a Purse of Leather made fast at the head thereof, and being filled with Powder, are nevertheless preserved from the danger of being fired by these Leather Purses.

Adm. You named the Trunnians of *Trunnians.* a great Gun even now, and I shall but imperfectly understand this your Discourse of Guns, unless you tell me what they are.

Capt. My Lord, they are only those Knops or Bunches of the Guns Metal which come from the sides of the Guns, and do bear them up upon the Cheeks of the Carriages.

Adm. How do you understand this word Metal, when it is referred to *Metal.* Guns?

Capt. When there is speech of the Metal of a Piece of Ordnance, it is meant, not of the quality, but quantity of the Metal whereof it is made; as in the disparting of a Piece, when they say the Piece is laid under Metal, the meaning is, that the Mouth of the Piece lyeth lower than her Breech; and so on the contrary, and

Under Metal.

S

when

*With her
Mettal.*

when she lyeth point blanck, that is, right with the Mark, then they say, that she lyeth right with her Metal; and if a Piece have much Metal in any part, the Saying is, she is well fortified in that part; and so on the contrary.

Disparting. *Adm.* What is the Disparting of a Piece, and how is it performed?

Capt. Disparting is the finding out of the Diameters, or difference of the thickness of the Metals between the Breech and Mouth of a great Gun, that so an equal and straight Shot may be made, by laying of the Mouth equal with the Breech of the Piece; and this is to be done sundry ways, but the readiest and plainest way, is by putting in a Straw or a small Stick into the Cilender or Concavity of the Piece by the Touch-hole, and taking the true depth there, to set it in the same manner at the Mouth of the Piece, by which is visibly and exactly discovered the difference of the thickness of the Metal betwixt the Mouth and the Breech of the Piece; the which, to make a
good

good Shot, must be mounted accordingly.

Adm. What mean you, when you say the Touch-hole of a Piece is cloyed, and what is the difference betwixt cloyed and spiked in this case? *The Piece is cloyed or spiked.*

Capt. When any thing is gotten into the Touch-hole of a Piece, so that the Pruning-iron (or rather Priming-iron) cannot make way for the Powder, with the Piece to take Fire; then the Touch-hole is said to be cloyed; and the Touch-hole is said to be spiked when Nails are driven into it, so that no use can be made of that Gun by an Enemy; so that the difference between the cloying and the spiking of a Touch-hole, seems only to be, that the one is cloyd by some Chance, the other is done of purpose.

Priming.

Adm. What is the Priming-iron, and what is Priming?

Capt. Priming, is the fitting and filling the Touch-hole of a great Gun with fine dry powder, and withal to put in a small sharp Iron (which is called the Priming-iron) to pierce the Coats of the Carthrages; so that the

Priming Iron.

*Priming
Horn.*

Powder in them may take fire. And if the Powder in the Touch-hole take fire, and the rest that is within the Piece doth not, then the Saying is, that the Piece is not well primed; to prevent which, the Touch-powder is made small and extraordinarily dry, and the Gunner hath it in a great Horn by his side, when the Ship is in a Fight; which Horn is called the Priming-horn. But this word Priming, is besides used in a second sense, for the first Colour or Ground which is laid on in the painting of a Ship, for others to come over it, is also termed priming.

Adm. Now you mention a Fight at Sea; what are those things besides which you term the Fights?

Fights.

Capt. Those wass Cloaths which are hung round about the Ship to blind the Enemy, are called the Fights; as also any Bulk-head afore or abaft, out of which Murthering-pieces or small Shot may be used under covert, or generally any other place, wherein men may hide and cover themselves, and yet use their Arms, are named Close-fights.

Adm.

Adm. What are these Murtherers? *Murtherers*

Capt. They are small, either Iron or Brass Pieces, with Chambers put in them; and they are most usefully used at the Bulk-head of the Fore-castle, Half-deck or Steerage; and they have a Pintle, which is put into a Stock, and so are fastned and traversed; and the use of them is to scour the Decks when an Enemy enters.

Adm. What mean you by these Chambers? *Chambers.*

Capt. They are Charges made of Brass or Iron, which are put in at the Breeches of Murtherers or Fowlers: And also that part, and so much of any great Gun as doth contain in it the due Charge of Powder, is counted and called the Chamber of the Piece.

Adm. What mean you by the word Amain, when you are to fight at *Amain.* Sea?

Capt. When a Ship of War cryeth Amain to another Ship, it is as much as to bid defiance unto her, or to bid her yield; also to wave Amain with a

naked Sword, is as much as to bid another Ship to strike her Top-sails; and to bid her strike Amain, is to will her to let fall her Top-sails.

Armed. *Adm.* How use you the word Armed?

Capt. When a Ship is every way provided for a Man of War, she is said to be armed. Also a Cross-bar-shot, is, in our Sea-acception, said to be armed, when some Rope-yarn or the like, is rowled round about the one end of the Iron-bar that passeth thorough the Shot; and this is done, partly that the Shot may the better be driven home to the Powder by the Rammer, but especially to prevent the sharp end of the Bar, from catching into any Honey-combs within the Cilender of the Piece, at the forcing out of the Shot.

Honey-Combs.

Adm. What are these Honey-combs? and what is this Rammer?

Rammer.

Capt. A Rammer, is a Staff with a round piece of Wood at the one end, the outermost part of which round piece of wood is made flat, and is somewhat less than the Bore of the Piece

Piece that it serveth for ; and the use of it is, to drive home the Powder close up to the Breech of the Piece, and the Shot to the Powder, and then the Wadd (that is, the Stopple, *Wadd.* which keepeth the Shot from rowling out) is put up close to the Shot, and all this is done by this Rammer ; and the Work is named the ramming home of the Powder, Shot, and the Wadd. And at the other end of most of these Rammers, there are rowled about certain pieces of Sheep-skins, fitted to the Bore of the Piece, so that it may go into the Cilender of the Piece full and close, yet not too strait ; and this is termed the Sponge of the Piece, *Sponge.* and this Sponge and Rammer are sometimes fitted to the ends of a stiff Rope, that they may be the better weilded betwixt the Decks ; and it is to be noted, that a great Piece (especially if she hath made a Shot a little while before) is always to be well spunged before fresh Powder be put into her, for fear least some sparks of fire be left within her, in some secret Honey-combs, and so suddenly fire

the Powder, to the imminent danger of him that ladeth, that is, chargeth the Piece.

Adm. Well, and what are these Honey-combs?

Capt. They are certain Holes or rugged parts within the concavity of the Gun, wherein some sparks of dangerous Fire may be lodged, as aforesaid. And these are all the Particulars which I conceive necessary to be expressed concerning Guns for the present.

Adm. You must then (Captain) according to your Promise, conclude this days Conference with the Explanation of such Particulars and Words of your Art, as have been hitherto omitted; and for my part, I shall do my best to remember them unto you, and do you interpret them for me. And first of all, I will begin with those you call Awnings, and do you tell me what they are.

Awning.

Capt. An Awning at Sea, is nothing else, but when a Sail, or the like, is hung over any part of the Ship above the Decks, to keep off the Sun or the Dew.

Adm.

Adm. What mean you by these words Birth and Birthing? *Birth and Birthing.*

Capt. When a due and fit distance is observed for Ships, either at an Anchor, or under Sail at Sea, to keep so off one from another, as not to be in danger to fall foul one upon another; this is termed a Birth. But Birthing is also another thing, and that is, when a Ships sides are raised or brought up.

Adm. What understand you by the Brooming of a Ship? *Brooming of a Ship.*

Capt. When a Ship is brought on ground, or on a Careen, that burning which is then used with Stuff, Reeds, Straw, and the like, to fetch off the old Filth, is called Brooming, and it is near a Kin to Graving, formerly mentioned.

Adm. How is the word a Butt taken in your Phrases? *Butt.*

Capt. In Sea-language, a Butt is properly the end of any Planck joyning to another, being on the outside of the Ship under water; and to spring a Butt, is when a Planck is loose at one end, and therefore great Ships are bolted *Spring a Butt.*

bolted at the Butt-heads, that is, at the Plancks ends.

Adm. Is not Rabbeting a Work also belonging to the ends of Plancks ?

Rabbeting. *Capt.* Rabbeting is the letting in of the Plancks to the Keel of the Ship, which is conveniently hollowed away, that the Plancks may joyn the better and closer, and this is only used in the Rake and Run of a Ship, and not in the flat Flowers ; and this Hollowing away, is called the Rabbet of the Keel.

Rabbet of the Keel.

Adm. What is your Sea-cart ?

Sea-Cart.

Capt. It is a Geographical description of Coasts, with the true Distances, Heights, Courses, or Winds leading unto them ; and this Sea-cart is also called a Plot ; so that to prick a Plot, is to note down the Traverse of the Ships way, and comparing it with due and judicious Observation, and thereby finding where the Ship then is, to make a small Prick in the Plot in that Latitude and Longitude where you suppose the Ship to be at that time ; and so by keeping account of the several days and ways to find out, and

Plot.

and be able to guess how near or far off the Ship is to the Place you desire to be.

Adm. What mean you by Observati-
on, and what is the Traverse of a Ship? *Traverse of*

Capt. Observation, or that which *a Ship.*
we call to observe, at Sea, is only to *Observati-*
take the height of the Sun or Stars *on.*
with any Instrument, whereby may
be known in what degree of Latitude
the Ship at all times is.

Adm. What mean you by a Ships
Traverse?

Capt. The Traverse of a Ship at
Sea, is the way or goings of the Ship,
with respect to the Points of the
Compass whereon she sailed, and the
Angles which she made in going too
and again, that is, in and out, as a
Man is said to traverse his Ground,
when he indenteth or gateth some-
times this way, sometimes that way;
and Mariners use to note how many
hours the Ship hath gone upon every
Point, and what Sails she had abroad
all that time, and how near the Wind
she lay at that time, and so frame a
judgment of the way she makes; and all
this

*Traverse-
Board.*

this they set down upon a Board or Paper, which they call a Traverse-Board or Paper, the which being done, they draw a Line from the Place where they last were, to the Place where they made the Prick, or mark upon the Cart or Plot, and thereby guess at the whole Course, and so how far the Ship hath gone, and is advanced upon her due way; and this is termed a Dead-reckoning; and if they can at that time observe (that is, take the height of the Sun) and then find the Observation and this Dead-reckoning to meet at one, then they rest assured of the Place where they are; otherwise they trust more to the Observation, and reform their Dead-reckoning by it.

*Dead-rec-
koning.**Height of
the Sun.*

Adm. I pray describe your Traverse-board or Paper, that I may the better know it when I see it.

Capt. It is generally kept in the Steerage, and it hath the thirty two Points of the Compass marked upon it, with small holes on every Point, and small Pegs fitted unto them; with which, he that is at the Helm doth

doth keep Account or a Score upon the Traverse-Board, of how many Glasses (that is, hours) the Ship hath gone upon any Point of the Compass; the which, accordingly is shewed to the Master or Pilot, who frameth his Work, and maketh his Judgment thereafter. *Glasses.*

Adm. What understand you by Cranck?

Cranck.

Capt. A Ship is said to be Cranck-fied when she will bear but small Sail; to say Cranck by the Ground, is when a Ship cannot be brought on ground without danger of an Overthrow.

Adm. In what sense use you the word Cut at Sea?

Cut.

Capt. This word is used in various senses, as Cut the Sail, that is, to let it fall from the Yard. A well fashioned sail, is said to be well cut. To cut the Cable in the Hawse, is when there is not time nor possibility to wey it so suddenly as some suddain Accident requires, and then they are fain to cut it quite in two, hard by the Hawse. And the like is sometimes

times done when they are forced to cut the Mast by the Board.

Disembouging.

Adm. What is Disembouging?

Gulphs.

Capt. To disemboug, is when a Ship passeth out of the Mouth of some Gulph, and a Gulph is that piece of Sea, which is large within, without any Issue, and narrow at the Mouth; so that this Phrase is only used at the issuing out of a Gulph, not out of Harbour.

Sounds.

Adm. What are those parts of Sea you term Sounds?

Indraughts.

Capt. Any great Indraught of Sea betwixt two Head-lands, having no passage thorough, is called a Sound, as *Plymouth Sound*, &c. But when it is said the Sound without farther distinction, it is generally taken of that in the East Countries, by *Denmark*, as being the most large and remarkable of all others.

Sounding.

Adm. What is that you call Sounding at Sea?

Sound the Pump.

Capt. It is to try with a Line the depth of the Water in the Sea: Also the Sea-phrase is, sound the Pump; and that is when they put down a small

small Line, with something that is weighty to carry it down, to know what depth of Water there is in the Pump.

Adm. Have you not a Sounding Line, and a Sounding Lead? *Sounding-line.*

Capt. Yes; we have both.

Adm. What are the differences between this Line and Lead, and that Line and Lead that you have formerly mentioned, and named the Deep-sea-Line, and Deep-sea-lead; for both those, as well as these, serve to know the depth of the Water in the place where they sound.

Capt. The Sounding-lead is all one with the deep-sea-lead, only it is neither so weighty nor so long: But the differences betwixt the Sounding-line, and Deep-sea-line are many; for the Sounding-line is bigger than the Deep-sea-line: The Sounding-line is cut to Twenty Fathom, or not much more; the Deep-sea-line, to one hundred or two hundred sometimes: The Deep-sea-line hath its first mark at twenty Fathom, and so to thirty, forty, and so upwards; whereas the Sounding-line is marked,

marked, first at two Fathom with a piece of black Leather put into it, betwixt the Strowds; and at three Fathom the like: at five Fathom it is Marked with a piece of white Cloth, or white Leather, and so marked no farther. And this Sounding-line may be used when the Ship is under Sail; but the Deep-sea-line cannot be employed with any certainty unless the Ship be brought on the Back-stays.

Sea-drags.

Adm. We have Nets for our Fish-ponds, and Rivers, that we term Drags, but what are your Sea-drags?

Capt. Whatsoever hangs over the Ship in the Sea, as Shirts, Gowns, and the like; and the Boat when it is towed, or whatsoever else that this way may hinder the Ships way, when she is under Sail, are termed Drags.

Iron-sick.

Adm. What means your Phrase of Iron-sick?

Capt. A Ship or Boat is said to be Iron-sick, when the Speeks are so eaten away with Rust, or the Nails so worn, that they stand hollow in the Plancks, so that the Ship doth take in Water by them.

Adm.

Adm. What is it to Keckle, or to *Keckle.*
be Keckling? *Keckling.*

Capt. This Term is used to the Cables, (and ought to have been inserted, when I spake of Cables) and to the Bolt-ropes, and is when the Gauling of the Cable in the Hawse, or of the Bolt-rope against the Ships quarter is mistrusted; for then some small Rope is twined about these parts; and this is named to Keckle the Rope.

Adm. How is the Word taken at *Lash.*
Sea when they say, Lash it?

Capt. When any thing is bound up to the Ships side, as Pikes, Muskets; or a Butt of Water or Beer to the Main-mast; or any pieces of Timber, to make Fishes or Spare Top-masts, are made fast to the Ship without Board; this fastning is termed Lashing.

Adm. But what are your Lashers? *Lashers.*

Capt. These Lashers are peculiarly and properly those Ropes only, which bind fast the Tackles and the Breechings of the Ordnance, when they are haled, or made fast within Board.

T

Adm.

Lasking.

Adm. What mean you by the Word Lasking?

Capt. When a Ship Sails, neither by a Wind, or directly before the VVind, then she is said to go Lasking; and it is all one as Veering, or going with Quarter VVinds, or going at large, or going room.

Let-fall.

Adm. How use you this phrase, Let-fall?

Capt. It is generally used, for the putting abroad of any of the Sails, when the Yards are aloft; but if the Main-yard, or Fore-yard be struck down, so that the Sails may be loosed before the Yard be hoised, then they say not, let fall the Sail, but loose the Sail. And this VVord of Command is properly used, when they intend to put abroad the Main-sail, Fore-sail, and Sprit-sail; and for the Top-sails, the proper term is, heave up, (or rather out) the Top-sails, because they always lye in the Top: As for the Miffen the saying is, set the Miffen, and not let it fall.

Loom.

Adm. VVhat signifies the VVord Loom?

Capt.

Capt. The Looming of a Ship, is the shew or prospective of a Ship; and so they say, a Ship Looms a great Sail, that is, she seems to be a great Ship: and so on the contrary.

Adm. How comes it to be said, that a Ship hath a Lust?

Capt. VWhen a Ship heels to Star-board or Port, the saying is, that she hath a Lust that way; and this is said though it happen by unequal stowing in her Hold, although more properly, a Ship is said to have a Lust to one side or other, when out of her own Mould and make, she hath an inclination to lean to one side, more then to another, in her swimming.

Adm. How is a Ship said to lye under the Sea? *To lye under the Sea.*

Capt. When in a Storm, the Ship lies a Hull, and the Helm made fast a Lee, so as the Sea breaks upon the Bow of the Ship, and upon her broad side; she is then said to lie, or to be laid under the Sea.

Adm. What implies the Word, *Man the Ship*? *Man the Ship.*

Capt. A Ship is said to be Manned, when she is sufficiently stored with Men: But of this, more shall be spoken hereafter, I mean of the particular, concerning the sufficiency of the number of Men. When a Ship is to shew abroad all her Men, it is also called Manning of the Ship: when they would have Men to heave at the Capstan, the Word is, Man the Capstan: when men are commanded to go up into the Top, the saying is, Man well the Top; and the same they say of the Boat: And when any Man of Fashion is at the Ships side ready to come aboard, they bid, Man the Ship-side, and Man the Ladder, to help him in.

Speeks.

Adm. Which be those Nails you call Speeks.

Capt. They are great and long Iron Nails, with flat heads and of divers lengths, some being of a Foot or two long; some of these Speeks are ragged, which cannot be drawn out again. They are used in many parts for the fastning of Timbers and Plancks. In very foul Weather, they use with these

these Nails to fasten a Coin or the like, unto the Deck, close to the Breech of the Carriages of the great Guns, to help to keep them firm up, to the Ships-sides, lest they should break loose, when the Ship rowls, and so endanger to beat out some Butt head of a Planck; and this is called Speaking up of the Ordnance.

Adm. I remember you spake formerly, of these Coins or Quoins that belong unto the Guns; but have you not some other Quoins in use besides?

Capt. Yes my Lord, there are two kinds more of Quoins; the one is those which are termed Cantique Coins, and these are short ones, and made with three Edges; and they serve to put betwixt the Cask in the Hold to keep them from Rowling one against another: The other Quoins are called Standing Coins, and are made of Barrel-boards, being about four Inches broad, and of a due length to be drove in betwixt the end of the Cask, about two or three Hoops from the Chine-hoops, to keep the Butts from jogging.

Adm. VWhen you spake of Speeks even now, you said nothing of Marling Speeks; what are these?

*Marling.
Speeks.*

Capt. They are small Nails of Iron, made of purpose for the splicing together of small Ropes; as also to open the Bolt-ropes, when they sew them into the Sails.

Mats.

Adm. VWhich are those you call Mats a Ship-board?

Capt. They are not those, which you call Mats on Shore, though some fair Ships there are, whose fair Cabbins are Matted even with them also; but those which are properly our Sea-mats, are broad Clouts weaved of Sinet and Thrums, and some are made of Sinet only: and their use is to preserve principally the Main and Fore-yards from gauling against the Masts, at the Ties, and at the Gun-wale of of the Loof; they are sometimes likewise employed to keep the Clew of the Sail from gauling there; as also upon the Bolt-sprit, and Beak-head to rescue the Clews of the Fore-sail.

Mooring.

Adm. VWhat Mean you by the VVord Mooring?

Capt.

Capt. To Moor a Ship, is so to lay out her Anchors as may best fit, for the Safety of the Ship in her Riding at Anchor. And there are divers kinds of Mooring : As to Moor across or a-thwart, that is to lay out one Anchor on the one side of a River, and another on the other side right against it, so as both Cables may bear together as well for Ebb as Floud.

To Moor alongst.

To Moor alongst, which is to lay one Anchor right in the middle of the Stream, and another right a-head : and this is done, where there is some perill of driving a Shore ; because both the Cables will in this posture, bear together, and so prevent that danger, if she should chance to fall in upon either shore. To Moor Water-

To Moor Water-(hot.)

shot ; and that is, as it were quartering, in a mean betwixt both the former, as being neither a-cross the Tide, nor alongst the Tide : Also when the Ship is brought into any place of Riding, the Master and his Mates, look out, and observe where, which way, and upon what point of the Compass, the VVind or Sea, is likeliest to endan-

*Mooring by
East or
West.*

Proviso.

ger the Ship most, and there they lay out an Anchor; and this is termed Mooring, for *East*, or *West*, or *South-East*, &c. as the point is, upon which she is Moored: And it is to be noted, that a Ship is not said to be Moored, unless she have two Anchors at the least, on the Ground; and yet if she have but one Anchor, and a Hawser a shore (which is called a Proviso) they will say, that the Ship is Moored with her head to the Shore.

Adm. I remember that towards the beginning of this Dialogue, you mentioned the Seams betwixt the Planks of a Ship: but what Seam is that which you Sea-men term the Monks-seam?

Monks-seam.

Capt. This is a kind of sewing of the selvedge of the Sails together, when the edges of the one are sewn over the edges of the other; and so are sewed on both sides, to make them the most strong and lasting.

Sew.

Adm. Your talk of Sewing here puts me in mind of your Sea-word, when you say a Ship Sews, or is Sewing: what is your meaning in so saying?

Capt.

Capt. When at low Water, a Ship cometh to lye on Ground, or lye drie, the saying is, that the Ship is sewed; and if the Water leave her in any one part only, they say she Sews in that part; and if it be a place where the Water doth not Ebb so much, as to lay her round about dry, they will say, the Ship cannot be Sewed in that place.

Adm. What is that you call the Offin?

Capt. By this VVord Offin, is expressed as much, as to say, abroad and out in the open Sea; and so from the Shore-ward: As when a Ship is at Sea, and hath the Shore on one side of her, and at the same time, hath another Ship on her other side to Sea-ward, or (as the phrase is) to Sea-board, it is then said, that that Ship which is to the Sea-ward of her, is in the Offin: *Sea-board.* And also if a Ship be seen sailing to the Sea-ward, they will say, that she stands for the Offin: And likewise, when a Ship is passing thorough our Channel, between us and *France*, and keeps her self in the midst of the Channel, and so comes not near any of the Shores, the saying is, that she keeps in the Offin.

Adm.

Off-ward.

Adm. How use you your VVord Off-ward ?

Capt. It is a term used, when the Ship being a-ground by the Shore, doth heel towards the VVater-side from the Shore ; for then they use to say she heels to the Off-ward ; and if her Stern only lyes towards the Sea, they will say, that she lyes to the Off-wards, and her head to the Shore-wards.

Adm. Which is that part or place in a Ship which you term a Pallet ?

Pallet.

Capt. It is a Room within the Hold, sever'd and made close, in which, laying some Pigs of Lead, or the like weighty things, the Ship may be sufficiently Ballasted, with the loss of little of her Hold ; that so the more thereof, may be employed for the stowage of Goods.

Pitch.

Adm. Of what extent is the Word Pitching, or to Pitch with you Seamen ?

Pitching.

Capt. Pitching is not only the laying on of Pitch upon any part of the Ship, which is in our Sea-phraze named Paying : But when a Mast, is put and
let

let down into the Step, the saying is, the Mast is Pitched; and when the Mast being in the Step, seemeth to be placed too near unto the Stern, they will say, that that Mast is pitched too far aft, and so on the contrary; and this is not meant by the head of the Mast, hanging too much aft, but of the placing of the Step too much towards the Stern: Also if a Ship fall too much with her head into the Sea, or if she beat extraordinarily against the Sea, so as she may endanger her Top-masts, they will say, that she will pitch her Masts by the Board.

Adm. What mean you by the Word *Predie*.
Predie?

Capt. It signifieth with us, as much as ready with you: As when a Ship is to be made ready for a Fight, the Word of Command is, make the Ship *Predy*, or make *Predy* the Ordnance: And a *Predy* Ship is when all her Decks are cleared, and her Guns and all her small Shot, and every thing of that Nature, well fitted for a Fight: And likewise to make the Hold *Predy*, is to bestow every thing handsomly

somly there; and to remove any thing that may be troublesome.

Round in.

Adm. How use you these Words, Round in ?

*The wind
largeth.*

Capt. This term is used to the Main and Fore-sail, when the Wind largeth (that is groweth fairer) upon them; and the Work belonging to it, is, to let rise the main Tacks, or Fore-tack, and to hale aft the Fore-sheat to the Catt-head, and the Main-sheat to the Cubbridge Head; and this is called rounding aft, or rounding in the Sail; and the Sheats being thus, they hale them down, and keep them steady from flying up with that Rope, called the Passarado.

Rowse in.

Adm. What mean you by the Words, Rowse in ?

Capt. They are Words used particularly, when a Cable or Hawser doth lye slack in the Water, and that they would have it made taught: As when a Ship is Riding but by one Anchor, upon the turning of the Tide the Cable will be slack, and so in peril of being foul about the Anchor; and then to keep it stiff and taught, they
hale

hale in so much as lieth slack; and the Words of Command in this Service, are, Rowse in the Cable, or Rowse in the Hawser: And these Words are not used in the haling in of any other Ropes, but only of these, and in this case.

Adm. What doth your Word Rum- *Rummage*
mage imply? *the Hold.*

Capt. It is to remove any Goods or Luggage out of one place to another, either betwixt the Decks or else where. But most commonly this term is appropriated to the removing or clearing of any Goods or Lading in the Ships Hold, that so they may handsomely be stowed and placed; and when this is to be done, the saying is, Rummage the Hold.

Adm. You have often mentioned Heeling, and interpreted it; but what is that you call a Seel or Seeling? *A Seel.*

Capt. There is no difference between Seeling and Heeling; but that Heeling is a constant or steddy lying down of a Ship on one side, either when she is on Ground, or at an Anchor, or under Sail; whereas Seeling
is

is a sudain agitation, and violent tumbling, sometimes to one side, sometimes to the other; as the Sea doth forsake her, (that is as the Billow of the Sea doth pass from under her sides, faster then her self can drive away with it;) at what time the Ship being under Sail is constrained to fall that way after it, and this is called feeling. And when a Ship thus tumbles to the Lee-ward, it is called the Lee-feel, wherein there is no danger, though it be in a storm, because the Sea will presently right her; whereas when she thus rowls to the Windwards, there is danger, lest she should come over too short, and too sudainly; and so by the breaking of the Sea right into her, she should either founder, or have some of her upper works quite carried away: so that Seeling is no more, then a sudden Heelings, forced by the motion and force of the Sea and Wind.

Lee-feel.

Adm. How do you take the Word Send, with you Sea-men?

Capt. When a Ship, whether under Sail or at an Anchor, doth fall with her

her Head or Stern deep into the Trough of the Sea, (that is into the Hollow betwixt two Billows) the saying is, that she Sends much that way, be it either a-stern or a head.

Adm. What is it to set the Land, To set the Land. Sun, or Ship by the Compass?

Capt. This is by observing by the Compass, how the Land bears upon any point of the Compass; and is commonly used when a Ship is going out to Sea from any Land, thereby to mark how the Land bears off from them, that so they may keep the better account, and the surer shape their Course: They use also to set the Sun by the Compass, and that is, to observe upon what Point the Sun is at that time, and so to know the hour of the Day: They use likewise, when two Ships sail in sight one of another, and especially when a Man of War chaseth another Ship; to set the Chased by the Compass, Set the Chase by the Compass. which is to mark upon what Point she beareth; and then if they stand both one way (as commonly they do) and that the Chased strive to make away;

way; by this it may be known whether the Chaser gets upon her (that is gains upon her) or no; for if the Chaser brings her forwards on, she out sails him, if aft, the Chaser out sails her; if they alter not, they both go equally.

Shackles.

Adm. What are your Shackles?

*The Bar of
the Port.*

Capt. They are a kind of Rings, made somewhat long-wise and larger at the one end than the other; their use is to shut fast the Ports, having a Billet thrust through them, which is called the Bar of the Port; and the like to these, but smaller are made fast to the Corners of the Hatches, to lift the Hatches up by them; and these are termed the Shackles.

Adm. What is your Shank, or your Shank-painter rather, for of Shank you spake already?

Capt. It is a short Chain fastned under the Fore-mast Shrowds, with a Bolt to the Ship-side, and at the other end hath a Rope fastned unto it; and upon this Chain doth rest the whole weight of the after part of the Anchor, when it lieth by the Ship-side:
And

And the Rope, by which it is haled up, is made fast about a Timber head.

Adm. When is a Ship said to go *Sheering*.
Sheering?

Capt. When a Ship in her Sailing is not steddily Steered she is said to go *Sheering*: Also when a Tide-gate runneth very swift, it will cause a Ship to go in and out, and so not streight forwards; and this is called *Sheering*; and this sometimes causeth danger lest she should sheer home her Anchor, that is, draw it home; or being near the Shore, should Sheer a-shore.

Adm. What be the *Sheer-shanks*? *Sheer-shanks.*

Capt. This is a kind of knot, which is cast upon a Runner when it is too long, so that they cannot hoise in the Goods over the Ships-sides, unless the Runner be shortned; and by this knot it is shortned at pleasure, and as sudainly let loose again.

Adm. What mean you by *Sheers a Ship-board*? *Sheers.*

Capt. When two Masts or Yards, or but two Poles are set up an end, and are a prety distance off at the
U bottóm,

bottom, and withal seized acrofs, one over another aloft near the top, this is stiled a pair of Sheers; unto this seizing is fastned a double Block with a Strap, and they are placed below upon the Chain-wales of the Shrowds, and these are lashed fast to the Ships-sides, to keep them steddily aloft. And their use is, either to set in a Mast, or to take it out, or else they serve to hoise in or out into Boats, that have no Masts, such Goods as are to be taken in.

*Sheer-
books.*

Adm. But what be those you call Sheer-hooks?

Capt. They are great Hooks of Iron about the bigness and in the form of a Sickle, and they are let into the Main-yard-arms, and Fore-yard-arms; and their use is, that when a Ship under Sail intends to board another Ship, she with these Hooks may spoil her Shrowds, or tear her Sails down with these Hooks: But they are held dangerous, for the breaking of their own Yards, if the Hook should chance to catch in the other Ships Yards.

Adm.

Adm. What Shoal-water is, all men know ; but what is that you term goad shoaling ?

Shoaling.

Capt. It is good shoaling, when the water (coming towards the Shoar) grows shallow by degrees, and not too suddenly ; nor is sometimes deep, and sometimes shallow. And it is a very safe and commodious going in with the Shore, where there is this good shoaling.

Adm. What is the Slatch of a Cable ?

Slatch of a Cable.

Capt. When any of the middle part of a Cable or Rope doth hang slack without the Ship, or the Cable it self, when it doth hang slack in the water, or the Lee-tack, the Sheats, Braces, or the like, then the word is, hale up the Slatch of the Rope or Cable. Also when it hath been a sett of foul weather, and that there comes an Interim or small time of fair weather, they call this a Slatch of fair weather.

Adm. You have made mention of sundry kind of Blocks, but not of the Snatch-block.

Capt. This is a great Block with a Shiver in it, having a Notch cut thorough one of the Cheeks, by which they reeve a Rope, and it is commonly made fast by a Strap about the Main-mast, close to the upper Deck, and is chiefly used for the fall of the Winding-tackle, which is reeved into that Block, and so brought to the Capstan.

Spell.

Adm. What signification hath the word Spell with you Sea-men?

Capt. To do a Spell, is the doing of any Labour or Work for a short time, and then to leave it to other fresh men, to take their turn. A fresh Spell, is when fresh men come to work, and to say, give a Spell, is as much as to say, work in such a mans room; and thus much for the word a Spell. But when this word is a Verb, as to say to spell, it is used when a Sail hath much wind in it, and more than it can well bear; for then they say spell the Sail, that is, let the Wind out of it; but this word is most used to the Miffen-fail, so that when they will take in, or speek up the Miffen,

sen, the word commonly is spell the Miffen.

Adm. What is your Spooning at Spooning Sea?

Capt. It is to put a Ship right before the Wind, being under sail at Sea, and this is termed Spooning afore the Wind; the which is generally done in some main Storm, when they find the Ship too weak to endure the lying under the Sea; for though a Ship, when she spoons afore the Wind, will rowl much, yet she strains not so much, and if she proves a dangerous rowling Ship in Spooning, so that necessarily she must be laid under the Sea, or else will rowl her Mafts by the Board, or should otherwise be in danger by the over-raking of a Sea, wherein fetching some desperate feel, she might chance to founder; then they use to set the Fore-sail to make her go the steddier, and this is called spooning the Fore-sail; but this is only done when they are sure of Sea-room enough.

*Spooning
the Fore-
sail.*

Adm. What is Steeve or Steev-ing?

Capt. The saying is, that the Bolt-sprit or Beak-head Steeve when they stand too upright, and not streight enough forwards; also Merchants call the stowing of their Cottons, which they force in with a Screw, Steeving of Cottons.

Stoaked.

Adm. What mean you by the word Stoaked?

Capt. When the Water in the bottom of the Ship cannot come to the Well, then they say that the Ship is Stoaked, or the Ship is a-stoak; and when any of the Limber-holes are any way stopped, that the Water cannot pass out, then the Saying is, the Limbers are stoaked; also when any thing is gotten in, or about the bottom of the Pump, that it cannot draw water, they then say that the Pump is stoaked.

Stretch.

Adm. How use you the word Stretch?

Capt. This word is not taken at Sea, as if it were to strein a Rope; but when they go to hoise a Yard, or hale the Sheat, the Saying is, stretch forwards the Halliards or Sheats, which is as much as deliver along that part, which

which they are to hale by, into such mens hands as are ready to hoise or hale.

Adm. What mean you by Striking, *Striking.*
as strike the Sails and the like?

Capt. To strike the Sails, is to pull down or abase the Sails; and when one Ship strikes to another in this manner, it is a Complement of Respect and Submission; when a Man of War comes up with a Chase, if the Chase strike her Sails, it is a kind of yielding of her self; also when a Ship coming in Shoal-water, beats upon the Ground, she is said to strike; likewise, when they would have any of the Top-masts taken down, the Word is, strike the Top-masts; and when they lower any thing into the Hold with the Tackles, or any other Rope, they term it, striking down into the Hold.

Adm. What call you a Surge? *Surge.*

Capt. They call a Billow or a Wave of the Sea, a Surge, and especially those that beat upon the Shore. And likewise, when they heave at the Capstan and the Cable, chances to slip

or skip back again, they will say that the Cable surges.

Tampkin.

Adm. What is a Tampkin?

Capt. Both this word, and the word Cap were forgotten, when I spake of great Guns and their Appurtenances; for as the Tampkin or Tampin is a small piece of wood made fit for the Mouth of any great Piece, and so put into it to keep out Rain or the Sea-water from washing into the Mouth of the Guns, so the Cap is a piece of Lead fitted over the Touch-hole for the same purpose, least any thing should cloy it.

Taunt.

Adm. What is it, when they say a Ship is very Taunt-masted?

Capt. When a Mast is extraordinarily tall for the Proportion of the Ship, then the Saying is, that her Mast or Masts are very taunt.

Adm. When is a Ship said to be Tite?

Capt. When a Ship is taunch, and takes in but little water, she is said to be Tite, and this is best known by the smell of the water that is pumped out, for the more the water stinks, the more tite the Ship is.

Adm.

Adm. What be your Top-ar-
mours ? *Top-armours.*

Cap. As the Wast-cloaths forementioned, called the Fights, are to the Cage-work of the Ship (that is, the Rails) so are the Top-armours to the Tops; and they serve not only for shew and Ornament, but also to shadow such men, as in a Fight are there stationed, to fling either Fire-works, or use their small Shot.

Adm. What Fire-works do you
most use at Sea in your Fights ? *Fire-works.*

Capt. All such Fire-works are fitly made use of in our Fights, as may fire either the Hulls, Sails, or Masts of Ships, and such are Fire-pots, Fire-balls, Truncks, Brass-balls, Granadoes, Fiery Arrows, and the like.

Adm. You have often used the words Hale, Hoise, and the like of that sense; but what peculiar sense hath the word Trise among you ? *Trise.*

Capt. This in propriety used, when any thing is haled by a Dead-Rope *Dead-rope.* (which is such an one as doth not run in any Block) nor is haled up by any other Art or Device than by hand and main

main strength ; as when an empty Cask being made fast to a Rope that is not a Tackle, is to be haled, then they say, Trise it up ; and the like they say by any Chest, or other Goods fastned to a Rope, and so by hand haled up into the Ship.

Adm. What signifieth the word Waft ?

Waft.

Capt. To Waft, is to convoy or guard any Ship or Fleet being at Sea, as Men of War use to do Merchant-Men. The word Wafts is also used when Signs are made to Ships, or Boats, or Men to come aboard, or to any other the like intent. And these Wafts are commonly the heaving abroad of some Coat or Sea-gown, or the like ; and the usual place to shew them out, is in the Shrowds of the Ship ; and it is in general, a Token that the Ship is in some extraordinary accidental danger, when these Wafts are hung out in the main Shrowds.

Wake of a Ship.

Adm. Which is the Wake of a Ship ?

Capt. It is that smooth water which a Ship makes a-stern, when she is under

der sail, and it is also called the way of the Ship, and by it, a good Judgment may be given of the speed that a Ship maketh in her going, as also, whether she doth go as she looks (as they say) that is, whether she makes her way as her Head lies; for if the Wake be right a-stern, she then makes her way as she looks; and on the contrary, if the Wake be found a Point or two to the Leeward of her Course, then the Ship goeth to the Leeward of her Course accordingly. When the Ship doth stay a-weather of her Wake (that is) when in her staying, she doth it so quickly, as that she doth not fall to the Leeward; and that when she is tacked, her Wake is to the Leeward, it is a sure sign that that Ship feels her Helm well, and is nimble of Steerage; when a Ship is in Chase of another Ship, and hath gotten as far into the Wind as she, and withal saileth directly after her, then the Saying is, that she hath gotten into her Wake.

Adm. What are your Wast-boards? Wast-boards.

Capt.

Capt. They are most used in Boats, seldom in Ships, and they are Boards fitted to be set up on the Boats sides, to keep the Sea from breaking into them.

Stretchers.

Adm. You interpreted the word Stretch before ; but what are your Stretchers ?

Capt. These also are only used in Boats, and are only those wooden Staves that the Rowers set their feet against when they Row, that so they may be able to fetch the stronger Stroak.

Way of a Ship.

Adm. In speaking of the Wake of a Ship even now, you said that it was also called her Way ; but is not that which you term the Way of a Ship taken sometimes in a larger sense ?

Capt. It is so : for the Rake or Run of a Ship is termed also, her way forward on, or aftward on ; as also when a Ship sails well, they will say, that she hath a good Way, or a fresh Way : and likewise, in casting up their dead Reckonings, they allow the Ship her Lee-ward Way (as they term it) and that is somewhat to drive to the Lee-wards,

wards, from that which she seems to go by the Compass.

And here (my Lord) I have run thorough our world of words, and herein (in respect to my Memory) I must confess my self beholding to the Pains of some others that have labour-ed before me in this particular, or else we must have been put to it to have talked this Dialogue somewhere on Shipboard, where the sight of the parts and pieces would have served me as a Nomenclator; for had it not been talked of at all, I should, in my two ensuing Discourses, have been thought to speak Fustian, or at least, as one that instructed in a strange and un-understood Language.

Adm. You have done well Captain, and I thank you, and will study your Language against to morrow, that I may the better understand it and you.

*This Dis-
course to
have been
made on
Ship-board*

THE

Dialogue the Fifth.

*Touching the best Ships of War,
and the Ceremonies of Enter-
tainment.*

Admiral.

COME on Captain. The work of this day shall be a brief Conference touching Ships of War, and especially about such of them as you apprehend to be most serviceable and proper for the present Times and Occasions; for having learned somewhat of your Sea-terms in the precedent Dialogue, I am now reasonable well fitted for the better understanding of this.

Capt. Your Lordship saith well, in saying proper for the present; for it is certain, that every Age and indeed every

every fifty years of time, taught by sense, and perhaps beaten unto it, by being beaten, after a tedious travail, brings forth some new Birth or other to free it self from the old Burthen: As for example our Saucy Neighbours the *Dunkirkers*, finding it to their cost, how short they fell of matching with us at Sea, in the late Queens time; and in what peril they then adventured to pilfer abroad: To remedy this and secure themselves, they have of late fitted themselves with Ships, (though not great) yet of extraordinary sail; whereby it is come to pass, that (as the Sea word is) they can take and leave upon all our Ships at pleasure, that is, they can out-sail and fetch them up, when they find themselves too strong for any of our Ships; and run as fast away from them, when they perceive themselves over-weak to deal with them.

Adm. They need no greater advantage than this to work their wills on us.

Cpt. It is true; and this hath been one main reason and a true cause of those

those frequent braves and bold darings that they have put upon us of late days; and that they have brought so much loss upon our complaining Merchants, and we taken so little revenge upon them.

Adm. I believe it well. But why should not our Ships sail as well as theirs?

The differences of Ships sailing and the causes.

Capt. Of these there may be many and sundry causes, as, the size of some of our Ships; for it cannot be expected, that a Ship of any extraordinary Burthen; as of eight, or six hundred Tuns, being heavily Laden with Ordnance, should possibly sail so yare, or nimbly, and make so good way, as another Ship that is lesser and lighter. The fashion also and frame of a Ships make and building is very considerable, in the point of her sailing: For the long Rake of a Ship forward on (as most of the *French* and some of these *Dunkirkers* have) give a Ship great way; and withal makes her to keep a good Wind; but then Care must be had (as aforesaid in the last Dialogue) that

she have a good full Bow, lest she pitch over much into a head-Sea; and the longer her Rake is, the fuller must be her Bow, to preserve her from being over-charged with her Rake. And the very same may be considered in the Run of a Ship; the which being long, and coming off handsomly by degrees, that so the Water may come the more swiftly to her Rudder, and so help her Steerage, is of main importance likewise, for a Ships good going. And it is to be noted, that the narrower the Rudder of a Ship is (if she will feel it, and that she have a fatt Quarter) the better it is for this purpose; because an over broad Rudder holdeth much Water, whensoever the Helm is occasionally put on the one side; the which must needs hinder the Ships way. The setting and fitting of the Masts of a Ship also, is very Material in this Case; for if she be over-masted, either in length or bigness, it will over-charge her, and so make her to lye down too much to a Wind; for the more upright a Ship sails, the bet-

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*Touching
the staying
of Masts,
and the o-
ver-rigg-
ing of a
Ship.*

ter she fails : And if she be under-
masted, she then loseth the benefit
and advantage of the spreading of a
large Sail; which must needs hinder
her sailing that way. There is much
Care and consideration to be had
likewise, as touching a Ships Sailing
and Working, in the point of the
staying of her Masts : For generally
the more aft (Flemish like) the Masts
of a Ship do hang, the better the Ship
will keep the Wind; and some Ships
require the stay to be taught, others
slack; the which must be caught by
practice and observation. To this
end also Regard is to be had, that a
Ship be not over-rigged, for this (as
hath formerly been touched) is a
great wronging to a Ships sailing, by
reason that a small weight aloft, hin-
ders more than a great one below : for
it must needs make her stoup, and in
a good Gale of Wind to lye too much
with her quick side in the Water;
especially if she sail by a Wind: and a
Cranck-sided Ship can never sail
well : So that these particulars, or any
one of these, as they are more or less
punctually

punctually observed, or neglected, do work much towards the good or bad sailing of all kinds of Ships whatsoever. Though perhaps, the more particular cause of our Ships being so generally out-failed by the *Dunkirkers*, and *French*, is (as I conceive) in that for the most part, they are built so strong, and (consequently) heavy, and so full of Timber and Timbers: We building ours for seventy years, they theirs for seven: We for stowage, they for stirring.

Adm. And yet I have often heard it confidently spoken, that our *English* Ships in general, and especially those of His Majesties, are the primest Ships of War in the World.

Capt. I deny not, but that in the composition of a Royal Fleet, the which being to meet with another the like, seek out one another, with a resolution to fight it out, and to set up their Rests, upon a main Battel on the main Sea, there are no better nor braver Vessels swimming on the Seas, then are our *English*; and cheifly those of His Majesties Royal

How our Ships, are the best men of War.

X 2 Ships,

Ships, which are indeed the very Castles of the Ocean. And yet let me say thus much, that even in a Royal Fleet, thus composed, and thus disposed, unless with them there be a mixture of some of these lighter sort of Ships, and some of those nimble and prime Sailers, it must needs prove it self but like a huge Gyant, strong and perhaps invincible at a close and grappling, but weak and lame in his Legs, so that any active and nimble Dwarf may keep out of his reach; and doing so may affront and scorn him, nay hurt and endamage him, without receiving the least hurt or danger from him again.

Adm. By this it seemeth to me, that it may be collected and concluded, that one hundred Sail though but small Ships, being good Sailers, may be able to make a good party, with full the like number of any Ships whatsoever, that are heavy Ships, and but bad of sail; or at the least that these small Ships may chuse, whether they will take any harm by these great ones or no.

Capt.

and Ceremonies of Entertainment. 309

Capt. I dare affirm (my Lord) that not only one hundred Sail of such Ships, but even half the number or less, being well Manned and sufficiently provided, may not only make a saving business of it, but have the better, and the advantage, in an open Sea, of any hundred Ships whatsoever, that Sail but badly, although they look never so strong and big on the matter.

*Good Sail-
ers have
great ad-
vantage e-
ver bad
Sailers.*

Adm. I pray demonstrate this ; for otherwise it will be hardly believed.

Capt. These hundred ill failers, though big Ships, when they come to the Battel, must either be put into close or open order ; if into the close, the good Sailers (who hereby can take and leave, where and when they will) by charging them upon any Angle, shall force those they charge, to give some ground, and so to fall back and retreat upon their next Fellows ; in which falling back, as many of them as entangle, and fall foul (as ten to one but many of them will do) do become hereby utterly unserviceable : And withal these good failers, shall force

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and overpress the hundred bad, with their very Ordnance ; for being nimble, and agile, and having scope and Searoom enough, by clapping into the Wind, and bringing themselves on the Back-stays ; after they have bestowed one Broad-side, they may suddenly give the other : The which the hundred, by being so close one unto another, and heavy Ships withal, shall never be able to do ; so that these smaller and nimbler Ships, shall batter and beat upon the hundred, with a continual peal of Ordnance, whereas the hundred cannot by any means use nor employ save one and the same beaten side.

Adm. This may well be so indeed, when the hundred Ships are compelled to fight in close order : But how if they shall find opportunity to put themselves to a due and fit Birth and distance ; how will it pass with your good Sailers in this case, being that they are but half so many in number (as you have propounded them) as the other.

Capt.

Capt. And even in this Case (my Lord) (though it be at the very best that can be hoped for, for great Ships bad of sail) it is very probable, that the good failers (who being nimble Ships, may charge at pleasure, or not charge, as they find cause) shall prevail, either against those that are in the Rear; or upon any such of them, as by any accident shall be separated from the rest of their Fleet, or the main body thereof. And besides, if the Fight shall happen to be upon any Lee-shore, and that any of the great Ships, next the Wind (for the small Ships will be sure enough to keep to the Windwards of them all) be forced (as it may well be) to retire upon any of their own Squadrons, it is then all to nothing, but that the whole hundred of great Ships, by falling foul one with another, shall either suffer Shipwrack upon the Shore, or be constrained to render themselves to their Enemies.

Adm. For mine own part, I find not how to confute you in any thing that you have delivered in any

The advantage that small Ships being good Sailers have of great Ships, that are bad of Sail.

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of these particulars, for I find good reason in whatsoever you have said.

Capt. And I assure my self (my Lord) that there is no Sea-man, who understands both the Language and the reason, that can find any Ground of opposition herein neither, unless it chance to meet with some one, more possessed with the spirit of contradiction, than with reason or sense.

Adm. Well then, give me in brief your opinion and Judgment, what kind and manner of Vessels those are, that you most approve for Ships of War to serve according, and best, to the present occasions and use of the time.

*Of what
Burthen
Ships of
War are to
be of.*

Capt. And I say (my Lord) that as touching their Burthen and Bulk, I shall make choice of those of the middle Rank; for these well moulded and fitted as aforesaid, are commonly the best of sail, and withal will bear a stout sail, and are generally also nimble and yare of steerage, and withal of convenient force, in any Service whatsoever, as well for chases, as fights both offensive and defensive.

Adm.

Adm. But what say you touching the fashion and form of their building and contriving?

Capt. I say that the three Deck't Ships, built flush fore and aft, without any falls or steps up or down (which both hinder the ready passage of men too and again, and pester the Ship besides) and that have double Fore-castles, and their Bulk and Cub-bridge heads full Musquet proof; and so in flank one with another, as that they may every way scoure their Decks with their Ordnance laden with Case-shot, and having Loop-holes for the Musqueteers in Covert, commanding every Inch of them abroad; are thus far Ships impregnable, that they are not to be forced by any boarding, unless given up by Treason or Cowardice. But in these Ships *Ships of war, how to be built and framed.* a prime Care and regard is to be taken that they be Roomy betwixt the Decks, where the Ordnance lye, that so the Guns may be the more easfully managed, and that those that plye them may make the surer shots, and be the less annoyed with the Smoak

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Smoak of the Powder; and a Care is likewise to be had, that in the laying of their Decks, the lower Tire of Guns be not lodged too low and near the Water (an error found committed in too many of His Majesties Ships Royal that are of the old building) but that the lower Tire of Guns may be carried out in all fighting Weathers, without peril of taking in of Water at any of their Ports; and it is also to be observed, that these Ships be not over-flote built; (a fault amongst some others in some of those late built Pinnaces called the Whelps) for being so, unless the staying of their Masts be very much astward on, they can never sail well by a Wind, but proving Leeward failers, they will be soon eaten out of it, in a Chase of any length: It is to be required also, that the Bows and Chases of these Ships be so contrived, that out of them they may shoot as many Guns right forwards, and bowing, as possibly may be; and that the Ports be so cut out, as that the Guns lye not right over one another, but
so,

so, that upon the least Yaw of the Helm, one Piece or other may still be brought to bear: To which end also the Ports are to be made so large, that the Guns may be every way traversed.

Adm. Have you not some ratable and allowed proportions for the size of all Ports?

Capt. The ordinary Rate is of about thirty Inches in breadth for a Demy-Culverin; and so may answerably be considered, higher or lower for all other kinds of Guns, that are fit to be carried aboard in any Ship whatsoever; which are to be bigger or lesser, as the Ship is of more or fewer Tuns in Burthen.

Adm. But what are the sizes of great Guns, which you hold to be best, for the best Ships of War.

Capt. These sizes being (as I said but now) to be always proportioned to the sizes of the Ships, that are to carry them; and the best sizes for Ships of War being (in mine opinion) from four hundred, to eight hundred Tuns of Burthen; I may hereupon conclude,

The best sizes for Ports, and great Guns.

conclude, that the main of their Ordnance, is to be from a Saker at the lowest, to a Demy-Canon at the highest; and so to be chosen and brought aboard according to the burthen of the Ship: for though some few Minions and Murtherours may be usefully placed in some particular parts; and some Morter-pieces, and Canons-Pierries, may be had also, to do execution upon a boarding, yet for the Generality of Service, and so of Ordnance I cannot approve of any, beyond the weight of a Demy-Canon, in respect of their unmanageableness at Sea, nor of a lower degree than is a Saker, as being otherwise of a small and unprofitable effect and Execution.

*Of the
Guns called
Courtaux.*

Adm. What say you to those kind of Canons termed Courtaux?

Capt. I fear not to say, that in respect of their boystrous Reverse, they are both troublesome and dangerous, and in regard of their overshortness are of little or no execution, beyond the common Morter-piece.

Adm.

Adm. What think you of those ^{Of Drakes.} new light kind of Pieces that are called Drakes?

Capt. As for these my Lord, howsoever in regard of their lightness, they may seem very desirable, yet in respect of their unruly reverse, which is caused by their lightness; so that they are not to be used on Ship-board, unless their Trucks and Carriages be so framed, as by the streightness of the Trucks, their Reverse may be hindred; and that being so framed, they become thereby well nigh as unmanageable as any of the heavier Pieces, and are besides, by reason of the thinness of their Metal, very quickly so over-heat, as not to be used in any long and hot fight: It is therefore my Judgment of these also, that they are not to be held in any great account for Services at Sea; so that I shall rather by far make election of those kinds of Guns formerly mentioned, and anciently known, than of any of these new devised ones: And then whensoever all the forenamed particulars touching Ships of War shall be punctually observed

observed, and those Ships aptly and thoroughly fitted with those kinds of Ordnance as I here prescribe, I shall for mine own part conclude, that these are the only Vessels and Men of War, that I would make choice of to serve and fight in : And that not only for the taking short of *Dunkerkers*, and such like, as shall infest our Channels and Coasts; but for the intercepting also of all rich and desirable Prizes, in any part wheresoever, or for the making and maintaining of any fight, or kind of Battel, with any Fleets or Ships that swim on the Seas.

*Ceremonies
for Enter-
tainment
aboard of
the Prince,
his Admi-
ral or Ge-
neral.*

Adm. I am well satisfied with this your Relation.

And now Captain, since it is yet but early day, we will make up this days discourse, with somewhat of Sea-complement, and Naval Ceremonies; for our Ships of War, being once on flote, and Predy, it is to be expected that some good Company will come aboard; and therefore it is fit to know how to entertain them at their coming with due and decent Ceremonies: The which howsoever I believe to be various,

various, according to the Customs of several Nations, and more or less as the Persons are, upon whom they are to be practised; yet I desire to hear somewhat of every particular, and especially of such of them, as have been and yet are, most in use with our selves.

Begin therefore I pray with those Ceremonies that are usual and proper for the Entertainment, either of the Prince himself, or his High Admiral, or any of his Generals, when they come aboard of any Ships of War.

Capt. I shall my Lord.

Notice being given, that upon such a Day, the King in Person, or the high Admiral of his Kingdoms, or some General of a present Fleet, intendeth to visit any of his chief Ships, before they go to Sea, and to be publickly, and with Ceremonies, received and entertained aboard. By the break of that Day, the Ship is in every part to be made neat and Pre-dy, and to be trimmed with all her Flags, Ensignes, and Pendants: And the Ships Barge, to be sent from the Ship to the Shore, early in the Morning

ing, well furnished with Carpets, Cushions, Tilt, and the like; the Cockson with his Whistle, in her Stern to steer, and the Barges Gang, in their cleanlyest Cloaths, or Liveries, to Rowe; and as soon as the Prince (or any of the forenamed Commanders) hath set foot within the Barge, the Standard Royal, or the Flag is to be let fly or heaved out in her head, the which Flag or Standard is afterward, at his coming aboard the Ship, to be put abroad in the Main-Top. Upon the first kenn of his Barge from the Ship, the Ships Decks, Tops, Yards, and Shrowds, are all to be thoroughly Manned, and as it were hung with men: upon the nearer approach of his Barge, the noise of Trumpets are to Sound, and so to hold on, until he come within less then Musquet Shot of the Ships-side: At what time the Trumpets are to cease, and all such as carry Whistles, are to Whistle his Welcome three several times, and in every Interim, the Ships whole Company are to hale him with a joynt shout after the Custom of the Sea. As soon as the Whistles

Whistles and the shouts of Salute have done, the Trumpets are again to Sound his welcome to the Ships-side; and the Ships-side, and Ladder being thoroughly Manned with the primest and best fashioned Men, the Captain is to stand ready upon the Deck, by the Ships-side to receive him (if he be the Prince) upon his Knee, and thence to conduct him into all the principal Rooms and Offices of the Ship, and at last into the great Cabin, royally furnished to his retirement and repast: And being at his Meat the Musick is to be at hand, and all the Guns to be ready Laden and Primed, that he may Command what Healths he please.

And thus having entertained him, and fully informed him in all his demands; He is in the like manner to be waited upon at his departure, and to be conducted to his Barge, as he was received: And being in his Barge, after that the Trumpets have sounded *A loath to depart*, and that his Barge is fallen off a fair birth from the Ships-side, He is to be saluted with so many

Y

Guns

Guns of salute and
Entertainment to be
always in
number
odd.

Guns for a farewell, as the Ship is able to give, provided that they be always of an odd number.

Adm. And why odd?

Capt. The number of odd, is in these ways so punctually and strictly observed at Sea, that whensoever they are given even it is received for an infallible sign, that either the Captain, Master or Master Gunner is dead in the Voyage; and this farewell of Guns, is also in use, whensoever the prime Passengers, and especially the Captain, doth leave the Ship at the end of any Voyage.

Adm. Since you have ended this Ceremony with the giving of Guns: I pray proceed to all other particulars, wherein Guns are used in this Nature.

Idle expence
of powder
to be for-
bidden.

Capt. The fond and foul expence of powder in these kinds especially by the *English*, (who herein are the vainest of all Nations, as using it in every ordinary feasting and health-drinking) is very much to be condemned, and hath lately been providently restrained by His Majesty in all such Ships

as are in his Service. Nevertheless some Motives there are, the which may not only allow, but (in mine opinion) require somewhat to be done in this very manner and that not only for Jollity, and Ceremony, but as of some use and benefit withal; and these being those (as I take it) of which your Lordship is now desirous to be informed, I shall do my best to call my Memory to account for them.

Adm. I pray do so.

Capt. I say then, that if any Ship, or Fleet, either of our own or strangers, whether Merchant Men or Men of War, shall come up any thing near (as within reach of Cannon Shot) with any of His Majesties Ships, either at an Anchor or under Sail, it becometh them to pass under her Lee, after the Custom of the Sea, and in their going by, to salute her, with one, three, or five great Guns, the which are to be answered with fit correspondency. And this I conceive fit to be done, not only in regard of an acknowledgment of Superiority to the Ships belonging to His Majesties, especially

cially in all our Channels, but that by an expectance and looking out after this, all treacherous attempts, that may be plotted, by a stealing upon them to the Windwards, of laying of them aboard, either with Fire-ship, Mine-ship, or the like, may seasonably be prevented and avoided.

Adm. This is indeed in these respects fit and necessary to be continued, nor can it occasion much idle expence of powder; for the motives are not met withal often.

*The Kings
Admiral
Ships, and
his Castles
to be salut-
ed with
Guns.*

Capt. I opine likewise (my Lord) that all Ships whatsoever, (though of His Majesties own) when they come to an Anchor, under the command of any of his Castles, are to give some Guns, the which are to be respectively answered by the Castle or Fort; that so a due and timely notice may be taken one of another, and all practices, suspicions, and mistakes avoided, by making known one unto another what they are.

Ad. I find cause for the continuance of this also, go on.

Capt.

Capt. It is the general custom also, upon the death either of the Captain, Master, or Master Gunner of a Ship, when they are at Sea, at his throwing over board, to Ring his knell and farwell with some Guns, the which (as I said before) are to be always of an even number; and the which Custom, for respect and distinction sake, I think fit enough to be held on.

Adm. And I too: Proceed.

Capt. It is the use likewise (though this be rather a part of a punishment than a Complement, as was formerly noted when we spake of Sea-punishments) that when any Offender is ducked at the Main-yard-arm, to shoot off some one, or two Pieces of Ordnance, at the instant of his falling into the Water; the which is done, as well to make the penalty the more terrible, by troubling and astouning him with noise, when he is over head and ears in the Sea, as to give knowledge thereof to all the other Ships of all the Fleet, that they may look out and beware.

*Guns to be
allowed to
be given at
the bring-
ing home of
prizes.*

Adm. Be this allowed also for my part.

Capt. It is the use likewise, when any Ship of the Fleet is sent abroad, and chanceth to meet with a Prize and taketh it, at her return into the Fleet, having her Prizes following of her, and her Prizes Colours hung disgracefully, under her own, at her Stern, to pass under the Lee of the Admiral and in a Jollity and triumph to give some Guns.

Adm. This expence of powder may well be allowed, for there is somewhat gotten to pay for it.

*Guns to be
given at
parting of
Consortship.*

Capt. When Ships have been long in Consortship at Sea, and are to part several ways upon their occasions, it is the Custom to take a leave and farewell, one of another with some Guns.

Adm. This being a complement of Civility, it is fit to be continued; have you any more of this nature?

Capt. There are some other ways wherein powder is spent, or rather mispent, as in Drinking of Healths, and the like idle and vain Fooleries: so utterly unfit to be held in practise,

as I assure my self your Lordship will take no content in the rehearsal of them; neither indeed do I mention any of the former, as of any such real necessity, but that they may be well enough forborn, wheresoever, and whensoever, Powder is scant; for it is true that they are of the right nature of all other Ceremonies, as having much more of the superficial than of the substantial.

Adm. Well let us leave them out then, and in their stead let me hear somewhat from you, about the Ceremonial Custom, and use of carrying out of Flags.

Capt. Flags (my Lord) to speak properly, are only those which are carried out in the Tops of Ships, and they serve, as Badges, and that as well for the distinctions of Nations, as Officers and Commanders: And so the Admiral of a Fleet or Squadron hath his Flag in the Main-top, the Vice Admiral in the Fore-top, and the Rere Admiral in the Mizen-top, with the Crosses or Colours of their Nation and Country-men. And thus far it is

*Of the
Standart
Royal, and
of Flags
what they
are.*

328 *Touching the best Ships of War,*

usual and common even with Fleets of Merchant Men, agreeing amongst themselves for the Admiral Ships in this kind. But in a Fleet Royal, consisting mainly of Men of War; whenever either the Prince is there in Person, or his high Admiral in his room, there is carried out in the Main Top of the Admiral Ship, where he himself is, instead of one of these ordinary Flags, the Standart Royal, which is the Arms of his Kingdom.

Adm. And may no man but the Prince or his high Admiral carry out this Royal Standart?

Capt. It is not usual, that any others do; nevertheless, as it is in the power of the Prince to transfer his favours at pleasure; so in my time I once saw this Standart carried out during a whole Voyage, when neither of both were present: But (as I take it) it was a Grace extraordinary and cannot be challenged by any General (*quatenus* a General) though of a Fleet Royal, save only of the high and cheif Admiral.

Adm.

and Ceremonies of Entertainment. 329

Adm. What are the observations and respects due unto these Flags, when they are thus seen flying abroad.

Capt. That all Ships and Fleets inferior, (either in respect of right of Sovereignty, Place, or the like respects) are tied to express an acknowledgment and submission, by taking in their own Flags, when they meet with any others, being any way justly their Superiors : As in the case of Sovereignty in our narrow Seas, which hath been long claimed, and made good too by the Kings of *England*: If therefore any Fleet whatsoever, shall, in any of those parts, meet with any Admiral of his Majesties, giving notice of her self, and having her Flag flying, and shall not submit to this acknowledgment, by taking in all her Flags, she may and is to be treated and used as an Enemy.

Adm. Although this be never so reasonable and just, yet I believe, that it will no longer be observed any where, but where fear and force shall work it.

But

But Captain how if two of His Majesties own Fleets or Squadrons of Fleets, being abroad in His Majesties Service, under the command of two distinct and equally absolute Generals or Admirals, shall (by any accident) meet one with another at Sea; how is this Ceremony to be passed and carried betwixt them in this case?

Capt. Truly my Lord, I see no Cause, that being both Generals and Commanders, under one and the same Princes Commission, and as you put the Case, without all relation of Inferiority or Superiority one unto another, in any point of Command, but that both of them may, and ought to keep abroad their Flags, although there should be found some Personal In-equalties betwixt them; as the one (perhaps) a Lord, the other a Gentleman.

And I have heard it argued, and concluded, that the Admiral of the *English* narrow Seas, is to carry out his Flag in all Companies and Fleets whatsoever, unless the Standart of *England* be flying abroad, which is as
much

much as to say, unless the Prince, or his high Admiral be there in their proper Persons.

Adm. But what if any of His Majesties Admirals come up under the Command of any of his Castles, is he then to carry out his Flag yea or no?

Capt. There is no equal understand- Flags be-
longing to
the Princes
Ships to be
carried out
within the
Command
of any of
his Castles.
ing Man can deny, but that he is of
due to carry out his Flag, though he
come to an Anchor there; for the
one being His Majesties Fort at Sea,
as well as the other at Land, and
both of them employed in His Maje-
sties Service, and the Commanders
being distinct in their Commands, and
without all Relations of Inferiority,
or dependency, there is no cause or
ground to be found, for a submission
on either side. It is sufficient (as I
said before) that they salute one ano-
ther with some Guns, and that the
Comer in begin first.

I know well, that there have been
some Land Commanders, who have
hotly argued to the contrary; but
until I do find them less partial, and
more

more reasonable, they shall give me leave to dissent from them in this particular : For whereas they think to speak much for themselves in saying that the Land Fort is a settled one, and the Sea Fort, but a wanderer; they herein speak against themselves, since that Fort seems to be more preferable, which may do His Majesty Service in more places then one, then that which can do it but in one only. But howsoever sure I am, that this point of challenge is not hitherto decided for them, in any of the Martial Courts of *England*.

Adm. Nor is it fit that Friends, and fellow Servants should fall out about Ceremony.

But what other Flags have you at Sea, and what are their uses?

*of Colours,
Ensigns,
Pendants.*

Capt. As I said before, in strictness of terms, these only which are carryed out in the Tops, are to be called Flags, the other are named the Colours or Ensigns, and Pendants.

Adm. Wherefore serve the Colours or Ensigns, and where are they to be placed?

Capt.

Capt. They are placed in the Sterns or Poops of Ships; and very few Ships there are, whether Men of War, or Merchants, but have one or more of them. And the especial Service and use of them is, that when any strange Ships meet one with another at Sea, or make into any Harbour, by putting these Ensigns abroad which (as before said) is in Sea-language termed the heaving out of the Colours in the Poop, they manifest, and make known of what part and Country they are: And thus the *English* heave out their Colours with St. George's Cross in it; the *Scotish* with St. Andrew's and so all the rest, with some note and peculiar distinction, whereby they may be known.

Adm. Serve these Ensigns for no other uses but this?

Capt. For many uses besides, by way of direction, as we shall shew hereafter, in the Ensuing Dialogue.

Adm. What servethe Pendants for? and what are they?

Capt. A Pendant is a long kind of Streamer of Silk or other stuff, cut pointed

What Pen-
dants serve
for.

pointed out towards the ends, and there
slit into two parts. The use of them is
in Fleets to distinguish the Squadrons
by hanging of them out in the Tops;
as all those Ships of the Admirals
Squadron, hang them out in the
Main-top; those of the Vice Admirals
in the Fore-top; and those of the
Rere Admirals in the Mizen-top; and
here also they are of different Co-
lours. They are likewise used in
great Ships, (and especially those be-
longing to His Majesty,) for triumph
and Ornament, and are then hung
out at every Yard-arm, and at the
heads of the Masts.

Adm. Are there no other uses for
them?

Capt. No, neither do I know of
any farther employment for any kind
of Flags or Ensigns than those before
mentioned.

Adm. What other Sea Ceremonies
have you then?

Capt. Some few others we have,
which are used in the Haling of Ships,
and in the mannerly coming up with
them, when they are found to be
friends.

Adm.

Adm. I pray let us hear somewhat of these also, though it be but breifly.

Capt. Your Lordship hath heard somewhat of these already, as well in the begining of this Dialogue as in the next before it, so that I shall only touch upon them here again, with some addition of some others in that kind; I say therefore, that when strange Ships meet at Sea, it is the Custom that the better Ship (especially being a Man of War) calleth first unto the other, to know whence he is, and whither he is bound, and then the common word is, Hoe the Ship, and the other answers Hae, &c. And this is termed haling. And many times, if they fall out to be respective friends or good acquaintance, they salute with Whistles, and Trumpets, and the Ships Company give a general shout on both sides; at which time also, it is punctually observed, that the Inferior Ship, either in respect of worth, or employment doth pass by under the others Lee; for at Sea, if a small Ship (especially being but a Merchant

The Ceremonies in Haling of Ships.

Merchant Man) shall come up with a Man of War to the Windwards, (though both be of one Nation and Party) it is held as unmannerly and unrespective a trick, as if a Constable of a Parish should juggle for the Wall with a Justice of Peace, dwelling in the same hundred.

But to say sooth, there is more than Ceremony in this Ceremony; for many advantages may be lost, and dangers incurred, by the suffering of Ships to come up with them to the Windwards, and therefore no true and well practised Man of War will endure it, if he can by any means help it. And touching the reasons hereof, your Lordship may hear when we are to speak of Sea-fights.

Adm. Let them be left then till then; and in the Interim, go on with your Ceremonies.

Capt. The only one, that I can remember, (unspoken of) is that of striking or lowering of the Top-sails (as they call it) And this is, when any Inferior Ship or Fleet, being to come up or to pass by, within reach of the Cannon,

The Ceremonies of striking the Top-sails.

Cannon of another Fleet, more eminent in any respect than it self; that then all the Admirals of the inferiour Fleet, do not only strike all their Flags, but that every particular Ship of that Fleet, as they come up, with the Admiral of the other (by way of an acknowledgment of a respect and submission) do strike all their Top-sails upon the Bunt, that is, do hale them down, at the least half Mast high.

And this respect is also due, to all His Majesties Forts of Command, and is requirable from all Ships whatsoever (not being of His Majesties own, nor in his service) when they are to pass by them within reach of Cannon Shot.

And if any Ship whatsoever, shall pass by any Pallace of His Majesties, wherein himself is then in Person, so that it be the Court, she is to do the like, and withal to give some Guns. And thus I have given your Lordship the best satisfaction, that my poor ability, and mean memory, could perform in all the particulars, touching the best Ships of War,
Z with

338 *Touching the best Ships of War,*
with those Sea-ceremonies, and Na-
val Complement, that belong unto
them.

Adm. And I thank you for it Cap-
tain, and shall be glad, and will ex-
pect to find you here again to mor-
row.

Capt. I shall not fail to wait.

Dialogue

Dialogue the Sixth.

*About the Ordering of Fleets. In
Sailing, Chases, Boardings, and
Battels.*

Admiral.

CAptain, in our former discourses, we have chosen our Commanders, fitted our Common Men, Victualled, and Shipt them, with the Ceremonies thereto belonging. Let us now bring them into action.

And in the first place (to begin orderly with a March) give me your opinion, concerning the best forms for great Fleets to Sail in, and to hold Company together, with Comlyness and Conveniency.

Z 2

Capt.

Capt. Your Lordship cannot but have heard of the ordinary and general way, which is to divide them into three Squadrons; the Admirals Squadron, the Vice-Admirals, and the Rere-Admirals; the which being distinguished by their Flags and Pendants, are to put themselves, and (as near as may be) in their Sailing to keep themselves in their customary places: As the Admiral with his Squadron to sail in the Van, that so he may lead the way to all the rest, by the view of his Flag in the Main-top, in the day time, and by his light or Lanthorn in his Poop in the night. The Vice-Admiral and his Squadron, to sail in the Battel or middle of the Fleet. And the Rere-Admiral and those Ships of his Squadron, to bring up the Rere.

This I say is the most common and usual order for the sailing of great Fleets: Only in the *Spanish* Fleets, that yearly go for the *West-Indies*, the Vice-Admiral brings up the Rere; but this is, because, for the most part, those Fleets have no Rere-Admirals at all.

Adm.

Adm. And what think you of this old and ordinary order?

Capt. I mislike it not, yet withal *The best manner and form of sailing for a great and Royal Fleet.* affirm, that in great Fleets, consisting of fourscore Sails or upwards, the divisions into more Squadrons, will be very necessary and useful; and being proportioned into five, the order in their sailing cannot but be very advantageous and serviceable, if the two Squadrons composed of the lighter Ships, and best Sailers, shall be placed, as Wings to the Van, Battel, and Rere of the rest of the Fleet.

Adm. Wherein serviceable and advantageous?

Capt. First, in the facilitating of all commands, and the publishing of all Instructions: The which being sent from the Admiral General, to the Admirals of the Squadrons, may hereby (by their being more in number, and having the fewer Ships in their Squadrons) be by them dispersed and imparted to every particular Ship of the Fleet, with the more ease, certainty, and speed. And surely, the short intelligences and (by consequence) executions,

tions, through the want of this mean and course of conveyance, have occasioned (in some actions that I have been in) upon mine own knowledge both ignorance and disorder.

Secondly, in that all the Ships of every Squadron may also, with more certainty and less hazard of falling foul one upon another, come up with their severall Admirals at all times, and so by speaking with them, at the least once every day, receive all fresh order and Advices, upon all new and sudden occasions.

Thirdly, in that every Squadron of the Fleet, taking a Care to keep themselves together, and to birth themselves at a fit distance, (as within kenn one of another) may hereby spread the more Sea, and thereby discover every way farther about, upon all strange Ships and Fleets whatsoever, that shall come in their way.

And fourthly, in that, when any such are discovered, they may (by this order) be in a better readiness to chase them, and in more likelihood to fetch them up, and speak with them.

Adm.

Adm. I well approve of all these reasons : But withal conceive that the difficulty must needs be great, for any Fleet consisting of many Ships, whercof some are good of Sail, some bad, some great, others small; to keep together unsevered, and especially unconfounded in the Squadrons, in the least foul Weather at Sea.

Capt. I confess that the difficulty is indeed great, yet may be much eased by due care and observation; the which is to be so much the more, in regard that it is a point of great consequence. To which end also, besides the common Custom of carrying out of Flags, and Lights by all the Admirals in their Poops, several signs are to be particularized, and communicated in the Instructions sent to every particular Ship of the Fleet, before their putting out to Sea, whereby it may be known, even in the dark of the night, when the Admiral General, upon any occasion casteth about, when he shortneth sail, when he intendeth to lye a-trie, when a-Hull signs, are likewise to be imparted, both

by day and night, that when any of the Fleet are too far a-head, they may retire, by sparing of some sail, or when they are too far a-stern, to cause them to make all the sail that they can, to get up.

Peculiar signals are also to be made, and known to every Ship of the Fleet, that having lost Company, and coming afterwards again in sight one of another, they may presently be discovered one unto another : As likewise when any strange Fleet or Ship is kenned, or falen upon by any Squadron or Ship, either by day or night.

*Signals,
for trying,
Hulling,
knowing
one another
to be made
and
known.*

It is necessary also, in all great Fleets, that some signal be privately imparted to the Captains of every Ship, for the distinguishing of any strange Ships whatsoever, that shall happen to fall in amongst them, and be suspected by any one.

And this may be done, by the hanging out of some Flag, to be distinguished, either in respect of Colour, or by the place where it is to be put out ; the which upon View (in the day time) is to be answered by all the
rest

rest of the Ships of the Fleet : And the same, in like sort, and to the same purpose, may likewise be performed in the night if (coming up one with another) some peculiar Word be given, for every day in the Week, and so from Week to Week; the which upon haling, they are to make known and to answer one unto another, somewhat in the Nature of the Word at Land.

And a point this is so necessary to be observed and heeded, as that thorough the want hereof, I have known, that divers strange Ships have passed through the very midst of a main Fleet even at noon day, without any discovery made upon them, or scarce any notice taken of them, until it was too late. And my self, with a single Ship, did once the like by night, through the thickest of all the *Spanish* Armado, coming from the *West-Indiis*, without so much, as being once looked after.

Adm. Since these signals are so necessary to be communicated and distinguished, and that you have expressed the way and manner of giving of them,

Signals are to be distinguished and conveniently to be discerned.

in one only particular, which was for the discovery of all strangers; I pray take the pains, to let me know (touching all the rest of them) as well how they may be contrived, as how ordered and placed, that they may be best seen, and discerned one from another.

Capt. Though I do conceive that this may easily fall within the Compass of every ordinary Invention, and may be varied thereafter; yet since it is your will, to have them more punctually laid down; and that it may perhaps save some Men some labour, I shall willingly obey and shall do it, in as many particulars as I can now remember; and that according to such ways and forms, as (in mine opinion) may best conduce to the uses and ends.

Adm. I pray do so.

Capt. And because I apprehend, that the Master-piece of this Work, consisteth in the through distinguishing of these signals, and the making of them perceptible one from another, that they may not be mistaken, and in the fit seating of them to the view of the whole Fleet, be it never so numerous,

merous, that so they may be perfectly known and distinguished, I shall mainly apply my self herein to these two particulars. First therefore, when the General intends upon such a day to make out to Sea, with his whole Fleet; a fit Signal hereof may be, to cause his Top-sails to lie loose upon the Caps, very early that Morning; and if it prove to be hazie and dark Weather, so that the Fleet being great, or lying scattered at an Anchor, may not well discern it, he may then, about two or three hours before he begin to wey his Anchors give fire to a single Piece of Ordnance.

*Signals,
for setting
out to Sea.*

Secondly, if being at Sea, occasions require a general convention of the Captains and Masters aboard the Admiral, the signal may be, the hanging out of a yellow Flag in the uppermost part of the Admirals Main Shrowds: But if this be for the assembly of the Council of War only, a blew Flag may be hung out in the same place; for I conceive this part to be more proper, than in the Miffen Shrowds, (though that be the most received

*For the conventions of
Councils of War, and
Councils general.*

received part for this turn) in regard that it is more visible and better to the kenn.

Thirdly, if the General shall find cause, to cast about in the night (for if by Day, this needs no signal) besides that Light or Lanthorn, which every Admiral carrieth in the Poop, the most perceptible signal hereof, that I can think of, may be, to put out one light in the Main-top also: And if he intend to lye a-Hull, then two lights: If a-Trie, three lights, the which may be shewed for some convenient time, until it be perceived that it is perceived by the whole Fleet.

Fourthly, If any part of the Fleet, by being too far a-head, shall be required to shorten sail, and so to attend the coming up of the Admiral; the sign hereof may be, to heave a Flag a-broad in the Admirals Fore-top, and if need be, to give a Gun withal, to cause them to look out; and on the contrary, if any of them be too far a-stern, to hang out the same Flag in her Miffen-top.

Fifthly,

Fifthly, If upon the discovery of any *Signals, upon the discovery of* strange Fleet or Ship, it shall be the *strange Ships and Fleets.* Generals will to have any of his Pin-
naces, and best sailers, to make up with
them, and to chase them, and so to
cause them to come to speak with him;
an apt sign may be to give fire to a
Piece of Ordnance or two, out of his
own chase, and withal to put out a
Flag in his Bolt-sprits Top.

Sixthly, If a Fleet shall meet with a *And for the Battel.* Fleet of Enemies, known to be so,
and after due consultation aboard the
Admiral, it shall be found fit to fight;
the signal hereof may be, that the
Admiral taking in his ordinary En-
sign, heave out in its stead an Ensign
all over red, which is called the
bloody Colours; that so all the Fleet
may dispose and order themselves, to
fall on upon the Enemy, in such form
and fashion as they have formerly been
informed and instructed in, and have
time to fit themselves for a Sea-
Battel.

And these are all such necessary
Causes, as require any signals to be
expressed by the General himself, out
of

of his own Ship : for as for the rest as they are to be communicated with the whole Fleet, and every particular Ship thereof, so they are rather to be expected from any one of them, than from the Admiral himself.

Adm. And what may these be ?

Capt. That if any Ship of a Fleet, shall discover any strange Fleet or Squadron of Ships, or single Ship; as it is fit, that not only the General, but the whole Armado, should as suddenly as may be, receive advertisement hereof; so the signal to this purpose may be, by putting abroad some Flag on that part of the Ship which pointeth most upon the discovered stranger; and if it be a Fleet that is so discovered, to hang out two Flags in the same manner, and withal to give fire to a great Gun or two, that so she may be looked after.

Signals upon discovery of Land.

Likewise, whensoever a Fleet coming out of the Sea, expecteth a Landfall, the first Ship that maketh Land, is to give present notice thereof to the rest of the Fleet; and this she is to do (if it be by day) by shewing her Colours

lours abroad, though it be (for a time) in the Main-top it self, inclining them to that part whence Land is discovered; and if this fall out in the night, she may then shoot off two pieces of Ordnance, and shew a light, and withal cast about and stand off, that the residue of the Fleet may take notice and beware.

If any Ship of a Fleet shall find her self in danger of foundring in the Sea, by springing of a leak, or any other mischance; if this be by day she may shoot three pieces of Ordnance, and then cause a yonker to go up to the Main-top, and shew a waft: And if this happen in the night time, to continue the shooting now and then of a single piece, and withal to shew a light, that so she may be taken notice of, found out, and relieved. And because there may be many occasions, whereby a Fleet may be, for divers days and weeks, very much seperated, and yet gotten together again, that hereupon, upon the first kenn, no mistakings may ensue, but that a far off they may make themselves known
one

*And of
dangers by
Leaks, or
the like.*

one unto another, it is necessary that some particular signal be specified to this purpose; the which may be, by so many times putting out and taking off some certain Flag, or by the so often striking of a Top-sail or the like; the which they are to answer one another.

All Signals to be well observed and looked after by all Ships in a Fleet.

And to every one of these fore-mentioned signals, diligent looking after is to be practised, and careful attention to be given by every particular Ship of the Fleet at all times, that so they may fit and accommodate themselves one unto anothers Sailing upon all occasions, and thereby keep themselves together, and be the readier prepared for all Services and employments.

The due and strict observation of which particulars, howsoever it must needs cost and take up much time, in point of a dispatch, and haste of a Voyage, because to a Fleet of Ships, in keeping well together, there is to be allowed even with the one and the same Wind and Weather, well near double the time that a single Ship hath;

hath; yet will it in a Fleet, make an ample amends, in respect as well of a general safety and preservation, as all other advantages that can be thought upon.

Adm. Indeed these Courses must needs be likely and prevalent, in general, and especially for the holding of a great Fleet in order and Company; and being duly observed, I cannot conceive how there can fall out any great dispersion or long separation amongst them, unless by some overgrown and long lasting storm.

Capt. In Cases of such Violence, and extraordinary fury, there cannot indeed be prescribed any certain Cure, nor is there any hope at all, at such times, to keep any great Fleets, from loss and danger, by a desperate separation.

And therefore the best providence and preservative is, by procuring an Union and re-collection of them, although it be a good while after: And to work this, it is one good means to impart before hand to every particular Captain of the Fleet, a note in

Courses for the re-collection of dispersed Fleets.

A a Writing

Writing (the which for the more secrecy is to be) sealed up, and not to be opened, but upon this desperate occasion of a deep seperation; in which note, all the places of the Rendezvous are to be particularized; that so with the first opportunity and favour of Wind and Weather, a repair may be made accordingly, and so a recovery procured of the lost Admiral and the dispersed Fleet, if possibly it may be.

Adm. It seems to me, that you have spoken fully to all these particulars.

Let us now come to the Course that is to be held, upon the discovery of any Fleet or Ship, that are strangers, and to know what is to be done in that case.

Capt. Certainly (my Lord) it is neither Sea-like, nor safe; that so much as any one strange Ship, much less Fleet, should be suffered to pass by within the kenn of a Royal Navy, and not be caused to render an account of themselves.

It is therefore to be ordered, that upon the first sight of any such some
Pinnaces

Pinnaces of Advice, and Ships of the best sail (of which every Squadron is to be provided with some, and chiefly those of the Van and Wings) be appointed and selected, as to an especial charge and employment, to stand in with them; and at their coming up with them to hale their Admiral; and to let him know, that he is to take notice of the Fleet in view and to send (at least) some of themselves to make their due acknowledgement.

*Ships of
Advice to
discover
strange
Fleets.*

Adm. And what if these shall be refused to be done by these strange Fleets, or Ships?

Capt. The refusal putteth them in the rank of an Enemy; and therefore, those Pinnaces that have spoken with them, are by a continual Shooting to give notice hereof to the rest of the Fleet, that so that Squadron, which lies fairest for it, may speedily begin a chase, and the rest follow in order.

Adm. You are then come to a chase, give me therefore some rules for the better effecting and performance hereof.

Capt. Rules of this Nature must be expected various and different, accordingly as the chased lye from the chaser: For if the chased (being set by the Compass) be found any thing to the Windwards (and then it is of least hope) the Chaser is to bring all his Tacks aboard, and to shape his course, to meet with her at the nearest Angle. If the chased be to the Leewards, it is at the fairest, for then the chaser may be in good hope to speak with her, unless she bear up right before the Wind, and so out sail her; or that she bring herself close by a Wind, and the chaser prove the more Leeward Ship, and so lose her that way. If the chased be found right a-head, and so the Chaser be put to a Stern-chase, the best sailer shall carry it, if there be Sea-room and day-light enough,

Adm. But having fetched up a chase, what is the most advantageous way of coming close up with her?

Rules to be practised in all chases. *Capt.* The best way to come up close, with a chased Ship, is, (if it may be) to cross her fore-foot; for here-
by

by you shall both hinder her way, and avoid the fury of all her Ordnance (save those only in her chase) and the most effectually bestow your own, if she put you unto it; and that as well your chase-pieces, at your first getting up within reach, as your whole Broad-side and Quarter-Pieces, as you pass a thwart her Hawse, and so scour her Decks from Stem to Stern.

Adm. Being thus gotten so fairly up with your chase, as within reach of your Ordnance; and finding her to make away from you with the best of her Working; what may be the best Course for the preventing of it?

Capt. It is best to order your Gunners to Shoot at her Sails, Yards, Masts and general Tackling, with as many of your Great Guns as will be brought to bear; and when you are gotten up very near unto her, to lade them with Langrel, or Case-shot, or short Bars of Iron, to make the greater spoil.

Adm. And having done all this, and made up with your Enemy to your
A a 3 wish,

wish, and finding her resolved to stand it out with you, what is the best way to begin with your closer fights?

Ships are to be hailed before they are fought withal.

Capt. Nay (my Lord) before we come to that, the Ship is first to be hailed; for unless she evidently and evidently manifesteth her self to be an Enemy, either by shewing of her Colours in the Poop or Top, or by shooting at you, and the like; or that (as before said) it be apparently seen that she works to get the Wind, or to get from you; or that being to the Windwards, she be warned by some shot from you, to come under your Lee, and she refuse to do it; it is otherwise, an Indecorum to shoot at any Ship, before she be hailed, as well with Trumpets, as the Voice, that so you may know what she is, and that she may answer for her self.

Adm. But all this being done, and she found an Enemy, and a fighting one: What is there then to be done next?

Ships how to be made Prey for a fight.

Capt. Your Ship being aforehand made Prey; all Wainscot Cabbins being either taken down, or at the

least

least stuffed with Bedds or the like, to serve as Bull-works against the small Shot; half Buts and Hogs-heads filled with Water, being placed upon the Decks, with Blankets, or Sea Gowns put into them, to quench all accidental fires: The Hold of the Ship, cleared by the Ship-sides, that so the Carpenters may the sooner and surer find the Enemies Shot, and stop the Leaks. All the Yards being sufficiently slung; all the Ships Company duly quartered and disposed of, as some of them to the Master for the mannagement of the Sails, some to assist the Gunners to traverse the Ordnance, others to the Corporal, for the plying of the small Shot, some to fill Powder in the Powder-room, others to carry it from them to the Gunners in Carthredges, and Bandeliers: The Carpenters ready some of them in Hold, others betwixt the Decks, with Sheets of Lead, Plugs, and the like necessities; the Chirugions in the Hold with their Chests and Instruments, to whom all the hurt men are to be carried, that they may be drest: The Minister also

in the Hold, to comfort and exhort the hurt ; and especially such as are dangerously wounded. Every Man taking due notice of his Station and Task, from whence he is not to budge without Licence. All these particulars being (as I say) before the beginning of the fight duly fitted and ordered, and the fight upon the instant of a beginning; the first Care and consideration to be taken and executed, is to keep to the Windwards of the Enemy; the which is a point of such importance, as thereby (at the very first) you shall not only avoid the trouble, and blinding, that may arise to your self, by the smoak of your own Ordnance and small Shot; but you shall also so annoy and hinder the sight of your Enemy, as that he shall not be able to make any certain shot at your self again, nor find the liberty of looking about, nor be able to discover, and so make use of any disastrous accident that may fall out to your hurt, and his advantage : And some there are, that speak so superlatively of this advantage, in keeping

keeping of the Weather-gage in a Sea-fight, as that they confidently affirm, that being so, it is not possible to receive any great shot from an Enemy, that can endanger the sinking of the Ship, because by the sudden righting of the Hull of the Ship upon the receipt of any such Shot, which is easily done by a speedy letting fly of the Sheats of the Sails, the piercing of the Shot is brought above the Water, and so the danger avoided.

The weather-gage to be kept in a Fight. How to Fight.

Adm. But how if a Constraint fall out that forceth to a fight, with the disadvantage of the loss of the Weather-gage?

Capt. In this extremity (for it is no less) all industry is to be used, to shoot down the Enemies Masts and Yards, and to spoil the general Rigging, (as was before instructed in the point of a chase) that so by some lucky shot, the Enemies Ships may be forced to fall to the Lee-wards, and so being eaten out of the Wind, this disadvantage of the loss of the Weather-gage may be redeemed.

What Course to take if the Weather-gage be lost.

Adm.

Adm. All this being done, according to direction and your wish : Let us now at last begin the fight and tell me the fashion of it ?

Capt. All this being done, and the Captain in his due place, upon the Quarter Deck or Poop of the Ship, waving the Enemy with his naked Sword, and bidding him amain ; his Lieutenant in the Fore-castle, and the Master upon the half Deck, to look to the manangement of all the Sails, upon all occasions. The very first of the Fight must needs be with the Cannon.

Adm. And how near are you to be to the Enemy, before you thus begin to him, with your Cannon ?

At what distance a Broad-side is to be given.

Capt. In a Fight, a Broad-side is uncertainly delivered, and expresseth fear withal, whensoever it is given beyond the distance of Musquet shot at point blanck : And a Volly of small shot is ill and unprofitably bestowed but within Pistol shot, or Caliver at the farthest.

Adm. But being within these distances, how is this manner of Fight, with

with these Fiery Weapons to be managed.

Capt. First of all, your Chase-pieces are to be given, and so coming up nearer with him, and that your other Guns will bear your whole Broad-side in order: This done, you are to run a good birth a-head of him if you can possibly, and then to edge up into the Wind, and to lay your Fore-sail, and Main-top-sail (which are called the fighting Sails) on the Back-stays; that so, as well your Consorts (if you have any) may have opportunity also to come up to fight with him, as that the Enemy himself may again shoot a-head of you, that so a second time your self may return and Re-charge.

*How fiery
Weapons
are to be
employed at
Sea.*

Adm. How are you to behave your self in this second Charge?

Capt. Especial Care being taken to keep your loof, to which end you are intently to observe all your Enemies Motions, and to answer them accordingly (as to Tack your Ship, when he Tacks his and the like) you are again to edge in with him, and in
your

your way, if you find any number of his Men upon the Decks, and lying open unto you, you may give him a Volly of small Shot, and presently upon that (being gotten up side by side with him) your Bow-pieces, and full Broad-side; and then letting your Ship fall off with the Wind, let fly upon him, your whole chase, and Weather Broad-side. This done, bring your Ship round that your Stern pieces may be given also; all which being performed, and all your Guns thus employed, you are with all speed, (for the keeping of your Weather-gage) to bring your Tacks close aboard again.

Adm. And having thus fought aloof, and made use of all your great Guns; and the Enemy remaining still obstinate to the fight, what is next to be done?

*To know
whether the
Enemies
Ship be
higher or
lower of
board than
your own.*

Capt. Consideration is to be had in the next place, whether it be fit to board the Enemy or no: And herein first of all, notice is to be got, whether the Enemies Ship be higher or lower of Board than your own, and whether

whether she do under or over top you.

Adm. How may this be done?

Capt. This may be known with the most certainty, (at the instant) by standing upon the Poop of your own Ship, and diligently observing the Poop of your Enemies Ship; for if you can see the Horizon Circle, over the Poop of that Ship, you may certainly conclude that your Ships Poop is higher of board than hers, and so on the Contrary. And in this manner you may understand of what heighth a Ship is in any place and part of her, by removing your self from place to place in your own Ship, and observing the corresponding parts of your Enemies Ship, and comparing her in every part with your own: And accordingly resolve, for the boarding of her or not, as you shall find cause.

In the second Place (in this case of boarding) it is to be warily observed, of what form and frame your Enemies Ship is, in the point of building and contriving; for if you find her lower

The manner of the Enemies Ships building (in case of boarding) mainly to be observed.

of her board than your self, and withal an open Ship, and not much overtopping you in Men, you may be bold to board her; but if she be of three Decks, flush fore and aft, and every way answerable to that description set down in the former Dialogue about Shiping; and that withal you perceive that the Enemy keeps his Men close, and only beats upon you with his Ordnance, it is no discretion to board, for you shall but bring your Men to the slaughter, and find your self beaten off, to your loss and dishonour, with small hurt to your Enemy.

Adm. What then is to be done in this case?

Capt. Certainly, the best of your Fight here will be, to ply it with your Ordnance, and that in the manner formerly described; and withal to order your Musqueteers to play mainly and principally upon the Port-holes of the Enemies Ship; and that at the instant of the thrusting out of his Guns; and in the mean time, to cause your Gunners to shoot at his Yards, Masts, Sails, and

and Tackling. And by this means you shall both beat his Men from the traversing and use of his great Guns, by the continual shooting with your small Shot into his Ports, and by the spoil of his Rigging, Masts, and Yards with your great Shot, disable him from tacking, and from bringing his Ship about to give her Broad-sides.

Adm. But if it shall be found fit to board, how is it best to be done?

Capt. You are then to bear directly up with him, and to cause your Gunners to beat open all your Ports to the Leewards, and to bring as many Guns from your Weather side thither, as you have Ports for, and then direct the Master to lay the Enemies Ship on board, loof for loof, and order your mid-Ship Men to Man your Tops and Yards, and to furnish them with great Stones, Fire-pots, and Brass Bails (if need be) and let all your small Shot be in a thorough readiness; and then Charge on lively withal your Shot, small and great; and instantly upon it enter your Men in the smoak every division at his best advantage.

The best parts to board a Ship in, and the way to do it.

Adm.

Adm. What are the parts of a Ship most advantageous to enter by.

Capt. The best part for the use of your Ordnance (if you are best stored that way) is to board your Enemies Ship a-thwart her Hawse, for in so doing, you may use the most of your own great Guns, and she only hers in her Prow : But the safest and best boarding for your Men, is either on the Bow of your Enemies Ship, or to bring your mid-ship close up, with her Quarter, and so to enter your Men by her Shrowds, and withal to instruct some of them, appointed for that turn to cut down the Enemies Yards and Tackling, with all possible expedition.

And by this Course likewise you shall best secure and preserve your men from the Enemies Cannon.

Adm. How if you have a Consort with you, and would make use of his assistance in your Boarding ?

*How to
make use of
a Consort in
the board-
ing of an
Enemy.*

Capt. Cause him to lay your own Ship aboard, on the contrary side from the Enemy, and so to enter his Men over your Ship, or at least to lay the Enemies Ship aboard, a-thwart her Stem

Stem or Stern, as you shall find it most proper and fit for your turn: But in no wise to lay the Enemies Ship on the direct opposite side unto yours.

Adm. And why not on that opposite side?

Capt. Because if your Consort should lay the Enemies Ship aboard on her Lar-board side, whilst you did the like on her Star-board, and so have the Enemy betwixt you both, you must needs, in the use of your Ordnance, endanger one another as much as the Enemy.

Adm. It must needs be so, for your own Ordnance would as well pierce one another as the Enemy. But being thus aboard, and your Men having entred the Enemies Ship, what is there to be done next?

Capt. Your Men being entred, and the Enemy beaten from aloft, and so the Decks cleared that way: the next care to be taken is, for the preventing of all Trains, either to Powder Chests, by a sudden forcing up of all such Chests wheresoever they shall be found; or to any Barrels of Powder placed
B b under

under the Decks for the blowing of them up; and this must be done, by a speedy breaking open of the Scutles and Hatches, and the entring of your Men between the Decks: And if, when you are upon the instant of your first entring, you shall perceive any Trains of Powder in any part aloft upon the Decks, before your farther entrance it behoveth you to Fire them.

Adm. But how may this be done?

In all boardings Trains of Powder are to be taken heed of, and how these may be done.

Capt. One way of doing of it, and a sure way, may be by the fitting of certain Pots of Earth, capable of two or three Pounds of Powder, in each of them; the which having lighted Matches fastned unto them, are to be thrown upon these Trains, that so by the breaking of the Pots, the lighted Matches may fire the Powder, and the Powder the Enemies Trains, whereby not only that danger is avoided without all damage to you self, but a way prepared also, for your own more easie and safe access, by entring your Men in the very blind of that smoak. And these Pots are also very proper and useful, to be thrown into any part of a Ship,

Ship, upon a boarding, where the Enemy is found to stand thick together, and that as well to blind as spoil them; and withal to procure to your self the better opportunity of entring your Men.

And thus the Enemy being every way stowed below the Decks, and your Men in possession of the Sails and Helm, the Enemies Ship is taken, and you may give what Quarter you please, provided it be Soldier-like, not Bloody in cold Blood, nor cruel at any time.

Adm. Well Captain, we have all this while spoken of an offensive Fight only: I pray let me hear somewhat, and have some Rules for a Defensive.

Capt. Rules of this kind, and to this point must be fitted according as the cases and occasions are that present themselves: For it is certain, and to be ingeniously confessed, that if any one shall find himself engaged, by, or with an Enemy, evidently and notoriously over-topping him in Shipping and Men, that it is the wisest and honestest way of Defence, to clear himself of his Company as speedily as

*Fights of
defence may
be well
made in
Ships well
fitted for
them.*

he can, either by taking the best advantage of out-sailing of him, or by stealing from him in the night, or the like : For *Non Hercules contra duos*. And some Commanders there have been, that have honoured themselves as much by a Retreat as any others by a Fight.

Adm. And yet I have heard that some even of our own Merchant Men, whereof some of them were single, and without the help and comfort of any Consort, have made very stout and long Defensive Fights, with two or three Ships of Pirates at once, and have at last escaped and got off, with good reputation.

Capt. I deny not, but that a well built and well fitted Ship, (as some of our Merchant Men are) being single, and Manned with some stout and well resolved Men, though not to the full, yet being willing and active, may (being put unto it) do very much defensively, against a far greater number, that are neither forced to the fight, nor have so good a quarrel. And indeed rather than to do basely, and yield dishonorably

honorably, it becometh honest Men, and true Soldiers to fight it out to the last Man, and to sink ten times over (if it were possible) in the Sea, rather than to give way to an ignominious submission : and it is true, that an Enemy, though never so numerous, may be made to buy his Conquest dearly, from such vowed Defendants, so provided and Shipped, witness the brave Revenge of that brave Ship the *Revenge* of Queen *Elizabeths*, Comanded by that brave and resolute *Greenfeild* : Nevertheless, as it were a madness in this case to seek out such an Enemy (the which I dare be sworn our Merchant Men never did) so it were a folly, if not a frenzie, to stay longer amongst them, than one must needs ; and not to disengage ones self, from such an inequallity, if it may honorably and cautiously be attained.

Adm. I confess it to be so. But yet let me understand some ways and Courses for a Defensive Fight, when one is forced unto it, by any engagement.

*Some ways
and Courses
to be used
in Fights
of Defence.*

Capt. Those few ways that I know, may be by endeavoring and applying your self (in the first place) to preserve your Men : And this may be done, by keeping of them close in covert under your Decks especially when you perceive the Enemies small Shot, to be ready and prepared to play upon them. To which end also the Lids and Covers of your Ports are carefully to be let down, as often as any of your Ordnance make their Reverse within board, and at every thrusting of them out; it is to be done with expedition, and the Men that mannage them, are warily to retire themselves from before the openings of the Ports. And for the preservation of your Men from the Gannon, the best and most probable way, that I can find, is, by the fitting and strongly Stanshioning of your mid Ship through out, with two rows of Stanshions made of Elme-plancks, or the like Wood that will not splinter : and these are to be of four, or six Inches in thickness, and of four or five Feet in distance one from another; and the void place be-

twixt

twixt these two Rows, is to be stuffed up with Juncks of Cables, old Ropes, Sea-gowns and Beds, or the like, that so such of your Men, as are not necessarily to be employed about the management of your Ordnance, and Sails, may retire themselves behind that side of this Barricado, which in a Fight is most remote from the Enemies shot; and hereby safeguard themselves from the violence of the great Shot, and especially from Cross-bar and Chain-shot, which is the chiefest spoil of Men; and yet be ready enough, whenever any occasion shall require, either for the entring of the Enemies Ship, or the Defence of their own. And in this manner you may maintain your defensive Fight, whilst the Enemy fighteth aloof, and boardeth you not.

Adm. But what if he board?

Capt. If he board, and that your Ship be one of those three Deck't Ships formerly described, you shall make him repent it, by scouring your Decks with your Ordnance laden with Case-shot, and lodged in good Cover, and

there well secured within your Bulk-heads, under the half Deck and Fore-Castle; as also by your small Shot, playing upon them thorough Loop-holes, upon every part and piece of your Ship aloft: so that the Enemy will not be hasty to give any second charge upon you that way.

Adm. But how if your Ship be an open Ship built, as too many of ours (and especially our *Newcastle* Ships) are, which otherwise would prove very good and lusty Ships of War.

*Courses to
keep off an
over potent
Enemy from
boarding of
your Ship.*

Capt. Truly (my Lord) there is no other way in this case, to beat of an Enemy that overtops you with Men from a boarding, but when he is boarded with store of his Men, by blowing up your Decks, with Barrels of Powder placed under them. But then the mischief will be, that the Enemy finding you thus laid open, enters upon you a second time, and then there cannot be found any second means to put him off.

Adm. But are there no Courses to keep off an Enemy from boarding of you, when you find your self to lye thus

thus open unto him, and that you are too weak to grapple with him this way?

Capt. Some ways there are, that may serve to this purpose, though to say truth, not much to be relied upon. As one may be by bearing up from him full afore the Wind, between your two Sheats, and so keeping always towards him, as he is ready to lay you on board, not suffering him by any means to come up with your side or midship : And this may be done, as long as you have Sea room, by a continual bearing up from him at all turns: so that if he will needs enter upon you, you shall force him to enter only at your Stern, over your Ships Poop, by causing of his Men to scale and clamber up by his own Bolt-sprit : The which he will find so difficult to perform, as well by reason of the height of your Stern, as the Streightness and ill way of his access, that ten stout Men of yours, may be sufficient to repulse one hundred of his.

A second means of avoiding of an *Stratagem*
Enemies Boarding of you may be (if *to avoid*
boardings.
you

you chance to be in a Channel, or any where, where you may find Ground by letting fall of an Anchor on a sudden, and so causing your own Ship to come to a Riding, at the very point when you find the Enemies Ship upon a boarding of you; the which he not at all suspecting, nor being prepared to do the like, it will certainly follow, that the Tide (especially if the Wind and Tide happen to be all at one, or that it be a calm) will so suddenly carry him to the Leeward of you, as that he shall not possibly be able to recover himself, nor to get to the Windwards again, until the turning of the Tide; in which interim your Retreat may well be favoured, either by a change of Wind, the meeting with some friend, the darkness of a Night, or some other good accident.

A third way to this purpose, may be found aidful, by a quick raising of some thick smoak or smother in your own Ship, as if it were accidentally on fire, just as the Enemy is putting himself into the action of Boarding of you; the which he perceiving, and
taking

taking you to be on fire, may well be scared from coming near unto you, least he should burn with you himself: In which blind also, you may well find some convenient opportunity of wending off from him, and by that means, (at least for the time) escape his hands.

And these are the surest, and most probable ways and Stratagems, that I know, or have heard of, for the preventing of being laid aboard by an over powerful Enemy. For as for that trick and invention, that some propound of the launcing out the ends of Masts, or Yards, thorough the Ports and other parts of a Ship, to keep off an Enemy from a Boarding, I allow but little of it; for it is only to be used by the greater sort of Ships, because in the lesser, though they should be of an extraordinary strength for their size; yet the weight and heighth of the stronger and taller Ships, must needs force out the opposite sides of the other.

Adm. I must confess (Captain) that I have received some satisfaction in all the particulars formerly discoursed of:
But

But there is a main Point remaineth behind unspoken of; and that is, concerning the best forms that a great Fleet is to put it self into, when it is to combat with another every way equal unto it.

Neither this Age, nor half of the last, have afforded any thorough example of forms for Sea Battels.

Capt. Although (my Lord) neither this whole present Age, with the half of the last put together, have afforded any one thorough example of this kind; for we have none but that at *Lepanto* (and that was for the most part with Gallies) with those Fights between the *French* and the *Spanish* at the Western Islands; between our selves and the *Spaniards* in 88. And between the *Dutch* and the *Spanish* (not long ago) within the *Streights*; and of two of these, as that between the *French* and the *Spaniard*, and between the *Dutch* and the *Spaniard*: we find little or nothing as touching the form of their Fights: yet since it pleaseth your Lordship, to impose this Task upon me, I shall not fear to speak plainly what I think, and would practice, if ever I should be to command in any such occasion.

Adm.

Adm. I pray do so.

Capt. I say then, that whensoever a Fleet is either to give or take a Battel, with another every way equal unto it, that every Squadron of every such Fleet, whether they be three in number, as generally they are; or five (as we prescribed in the beginning of this Dialogue) shall do well to order and subdivide it self into three equal divisions, with a Reserve of certain Ships out of every Squadron, to bring up their Reres; the which may amount in number to the third part of every one of those divisions; and every one of these (observing a due birth and distance) are in the Fight, to second one another, and (the better to avoid confusion and the falling foul one upon another) to charge, discharge, and fall off, by threes or fives, more or less, as the Fleet in gross, is greater or smaller. The Ships of Reserve, being to be instructed, either to succour and relieve any, that shall be any way engaged and in danger, or to supply and put themselves in the place of those that shall be made unserviceable.

able. And this order and Course to be constantly kept and observed during the whole time of the Battel.

Adm. I like this form and order well in every respect, and I conceive that it may be well observed by a heedful attention and vigilant Eye, that every particular Ship, is to have upon the working of their leading Ships, and especially Admirals.

Capt. It is most true, and by this due vigilancy, if the Fight should continue even within the night it may well be maintained and kept in this very order; if so be that every Ship do but carefully heed the Admiral of his particular Squadron by his light, and withal his leading Ship, that is next before him, that so when the Admiral falls off, and makes a retreat for the present, upon some especial occasion, all the Ships of that Squadron may do the like; and retire under their several divisions, to amend and repair any thing that hath miscarried in the Fight, or to speak and advise with their Commanders, and so to be ready to renew the Fight, and to recharge the Enemies according to their instructions. To

To which end it is especially and carefully to be observed by all the Admirals, that they so order and keep themselves, in their several divisions, as that they may best be seen and distinguished by their whole Squadron; and that as well by night as day, that so directions may be given and notice taken from them, by every particular Ship of the Fleet, and the executions thereof, performed with the more facility and certainty.

Adm. You have thus ordered the Ships of War for a Fight; but what shall become of the Munition Ships, and of the Victuallers in the mean time, whereof (you know) every Royal Fleet is to be thoroughly furnished.

Capt. These are all of them to be ordered, and to take their places in the Rere of all the rest of the Fleet, and are not to engage themselves at all in the Fight; but are to attend such directions, as shall be sent unto them at all times by the Admiral General.

Adm. This then is the sum of that which you have propounded concerning the form of a great Fleet being to enter into a Sea Battel.

That

All Admirals to order themselves that they may be seen.

The Munition Ships and Victuallers where to be ordered and placed

That it be divided into three or five Squadrons : That every Squadron, when they come to the Fight, be again subdivided into three divisions, that a certain number of Ships be reserved to bring up all the Reres ; And that in the Rere of all the rest, the Victuallers and Munition Ships be appointed to take up their places and Stations.

But are there no other forms of Fights to be made use of at Sea, besides this ?

*A form for
a small
Fleet to
fight in.*

Capt. Some forms besides, and different from this (I know well) have been found prescribed and practised. As for a Fleet, which consisteth but of a few Ships, and being to fight in an open Sea, that it should be brought up to the Battel in one only Front, with the chief Admiral in the midst of them; and on each side of him the strongest and best provided Ships of the Fleet, who keeping themselves in as convenient a distance as they shall be able, are to have an Eye and regard in the Fight, to all the weaker and worser Ships of the party, and to relieve and succour them upon all occasions; and withal,
by

About the Ordering of Fleets.

389

by being near the Admiral, may both guard him, and aptly receive instructions from him.

And for a numerous Fleet, they propound, that it should be ordered also, (when there is Sea-room sufficient) into one only front; but that the ablest and most War-like Ships should be so stationed, as that the agillity of the smaller Ships, and the strength of the other may be communicated to a mutual relief, and for the better serving in all occasions, either of chase, or charge: To which end they order, that all the files of this front that are to the Windwards, should be made up of the strongest and best Ships, that so they may the surer and speedier relieve all such of the weaker Ships, being to the Leewards of them, as shall be endangered or any way oppressed by any of the Enemy.

Adm. But what were the forms, that were practised in those two Fights you formerly spoke of; at *Lepanto*, and in 88.

Capt. At that great Battel of *Lepanto*; the Christian Armado (though

C c

made

*The forms
of Sea-
Fights pra-
ctised at
Lepanto and
in 88.*

made up almost all of Gallies) was marshalled into a Van, Battel, and Rear, and not much different from this of ours, that was first described. But the *Turkish* Fleet, appeared in the likeness and shape of a Croissant or half Moon after the change, yet divided by some intervals, into smaller Squadrons.

Adm. To what end was it thus formed?

Capt. For my part I find no other particular end hereof, nor any motive for it, at that time, save only a custom ordinary with the *Turks*, who take up and use this form of a Croissant in all their Battels both by Sea and Land; because it is the Imperial Ensign of that Empire, for otherwise, they being then to Fight in a streight place, among Islands, this Form of a half Moon, could not in mine opinion, but be very disadvantageous for them, and the rather in respect that their Fleet being great, must needs be subject to many disorders hereby, in so narrow a place, which could not afford them that Sea room that was necessary, for the

the due birthing of their Vessels (though Gallies) being put into such a form; the which being in any part broken or dissevered cannot easily be united and ordered again, but must remain in a dangerous Confusion.

Adm. And yet in the year of 88. that *Spanish* main Armado, being in our Channel, did put it self into this form of a half Moon when the *English* Fleet came up with it.

Capt. It did so, but that was only done with an intent to keep themselves together, and in company, until they might get up, to be a-thwart of *Gravelin*, which was the Rendezvous for their meeting with the Prince of *Parma*; and in this regard this their order was commendable.

Adm. What may be the best, and most probable Course to break and sever a Fleet, that puts it self into this form of a half Moon, to the intent you last mentioned?

Capt. The ordinary way is, to thrust Fire Ships amongst them.

Adm. And what think you of that way?

Some courses to disperse Fleets when they are thus formed.

Capt. For mine own part, I have no great opinion of it : For first, this cannot be done with any certainty, but with a Fore-wind, or a quick current or Tide, setting in full upon the Enemy : Secondly, these Fire-ships, when they have both Wind and Tide, must nevertheless be waisted with a strong Guard of Boats, close up with the Enemy, before they be fired and forsaken by those that have the bringing of them on : for otherwise, it is to be expected that the Enemies Boats will easily tow them off, to the one side or other, and so let them burn themselves unprofitably. And thirdly, though they be thoroughly and luckily put on, yet may the Enemy easily avoid the danger, by letting slip only, or cutting of the Cables in the Hawses (when it comes to the worst) of such Ships as lye in most danger, as being in the way of their drift. In which respects I do indeed hold them to be very uncertain to be relied upon, unless it be in some narrow of a River, with the benefit and help of a Wind and Current, where the Enemy
my

my cannot enlarge himself any way, nor tow off these Fire-ships with their Boats, to any side clear of themselves, by reason of the streightness of the Place.

It is true, that in another kind, and *Fire Ships* by way of a stratagem, this kind of *how to be* Fire-ships, may hapily be found of *used and* good proof; it being trimmed up to *employed by* look like Ships of War, they shall be *way of* well fitted with combustible matter, and so (at the instant of a Fight) be put out in the very front, as if it were with an intent to give an onset and to encounter with the forwardest and primest Ships, of the Enemy; that so having drawn them on to a Fight, and (as it may hit) to a grappling, they may then suddenly set themselves on fire (their Men saving themselves in their Boats) and so with the furious burning of themselves, hazard the spoil and firing of all such Ships of the Enemies as shall be either fast grappled with them, or aboard them, or near unto them : This (I say) may hapily be produced, when these Fire-ships, are mistaken for Men of War; but when known, and expected as

Fire-ships, they carry but small hope of success with them, thorough the reasons aforesaid.

Adm. And yet you know, that in that so great and gazed at business of 88. which you mentioned even now, that so huge *Spanish* Fleet, was put into a great Confusion by the use of these Fire-Ships.

Capt. It is true, but your Lordship may remember withal that it was rather thorough their own false fear than any true cause : For these Fire-Ships being thrust upon them in the dark of the night, instead of ordinary Fire-Ships (as indeed they were) they were thought by the Enemy, to be of those kind of dreadful Powder Ships, which that famous *Enginier Frederick Innibell*, had devised not long before (and some of them had felt to their cost) in the River of *Skeld* ; whereupon crying out *the Fire Antwerp*, that Forrest of Ships and vast Gallions, tumultuously cut their Cables in their Hawses, and so stood away in a shameful confusion, by the Northern Seas.

Adm

Adm. I perceive yet, that you believe wonders of this kind of Mine or Powder Ships.

Capt. Indeed I believe, that Ships stuffed with Powder, hadded in strong Vaults of Brick or Stone, must needs work Devilish effects, upon all things that are near unto them, when their Powder is fired. But the Mystery is how to bring them up to the Places and parts they are to work upon; and how to prevent preventions against their firing, when they are there. And this (I believe) will be brought to pass very rarely, and in but a very few places and cases; and when at Sea against a Fleet either under Sail, or at an Anchor, not once in five Ages; and besides by the least touch and working of any storm, they cannot chuse but suffer very dangerously, so that they are not in any main manner to be relied upon, especially in this particular of a Sea Battel, and the encounter of two main Fleets in an open Sea.

Mine (alias) Powder Ships hard to be made use of and employed.

Adm. What courses then may be prescribed for the breaking and dispersing

persing of a great Fleet, that either in the form of a half Moon, or any other shall be thus united and firmed, and so stand upon a Guard with you?

*The best
Courses for
the sever-
ing of a
great Fleet
formed in-
to a half-
Moon.*

Capt. Surely (my Lord) whensoever an Enemy shall put himself into this Posture to this purpose, being in an open Sea, it will be found the best way, to attend the first stirring of a Wind, and an agitation of the Sea, which must needs force some breach in his order, and occasion many alterations to your Advantage, so that you may have presented unto you sundry opportunities to give on upon him, in one part or other, with some of the Squadrons of your Fleet, whereby he shall be forced either to alter his order, or fall foul one upon another: And in the Interim (until you find this opportunity) you may (as occasions shall be offered) beat upon him with your Cannon Shot, whereof but few will fall idle, your Enemy being thus closed and shuffled together; nor can the Enemy return any other of his Great Guns upon you (he being thus birthed at an Anchor) save only those

those that shoot Fore-right out of the Chases.

Adm. But is there no other use that a Fleet may make by putting it self, into this form of a Croissant or half-Moon, but this of uniting it self, and keeping together?

Capt. I cannot conceive any other, unless when finding it self overtopping the Enemy in number of Vessels it shall intend, by extending and putting out the Horns and Corners of the Croissant, to environ and hemm in the adverse party on all sides, and then to charge on all sides, and thereby force a falling foul, one upon another, of the Enemy.

Adm. And if this should be done, what were the best course to saveguard against it?

Capt. In this Case, as the Words of Command by Land are, Faces about; so those divisions and Ships which find themselves in a likelyhood to be first pressed upon this way, are with all expedition to turn their Stems upon their assaillants, by bringing their Tacks close aboard, according to necessity,

Forms of fights to be practised when a small Fleet is hemmed in by a great.

sity, and so to defend themselves, and make good the fight, with their faces to the Enemy : And this done, they are to put themselves (if possibly they can, or as near as they can) into the forms, either of a long square or a wedge, and so to give jointly on upon the enclosing Enemy in that very part, where they shall discern him at the weakest, and so to pierce thorough and get Sea-room. And this will be the better done, if the tallest and strongest Ships, be ordered and placed in the very point of the Wedge, that so they may the better approach, and support the Shock of the Enemy, and tear them with their Ordnance : And besides (if cause require) these great Ships (being thus in the point of the Wedge) may single out, and enter fight, and if need be, lay aboard such of the Enemies Ships, as they shall find of most note and Command : that whilst they have thus engaged them in a fight with themselves, the rest of the weaker Vessels of their party, may the easier disengage themselves, and pass thorough the rest of the Enemies Fleet :

Fleet : And this also I shall propound, as the best forms for a Fleet to put herself into, when upon any other occasion she is to make her way, thorough an Enemies Fleet, whensoever or wheresoever she is put unto it: and this direction may also be usefully and hopefully executed, when any Fleet overtopped with number, shall be forced to a thorough fight with any such overtopping Fleet, especially if it find it self in any near proportion, answerable and equal to the Enemy, in the point of great Ships, though otherwise much Inferior in number of Ships: for the Enemies best Ships, being hereby taken up, and opposed, upon the easiest and evenest terms, some one Admiral, or prime one amongst them may chance to be so beaten, sunk, or taken, as that (partly through want of direction to the rest, and partly by a general discouragement and dismay) it may quite alter and change the whole face and fortune of the day.

Adm. Well Captain, we have all this while, insisted upon the forms of Sea fights in an open Ocean? But how
if

if occasion require, and compel a Fleet, either to offend another, or defend it self, in a Road or Harbour, what were the best Courses and Forms to be practised in this Case ?

*The best
Forms and
Courses for
a Fleet to
defend it
self in an
Enemies
Road or
Harbour.*

Capt. This is to be considered accordingly, as the Road or Harbour is, for if it be upon an Enemies Coast and in case of defence, the best course (in mine opinion) is if these Ships expect to be assaulted by a Fleet coming out of the Sea, to bring themselves to an Anchor, where they may receive least harm and damage from the shore; and if it fall out so ill, that any part of the Fleet (by being forced to an Anchor, or to pass by within reach of any Fort of the Enemies on the Shore) find it self in danger that way; it may be provided for, by causing some few of the worst and oldest Ships amongst them, to run themselves on ground right in the face of the Enemies Ordnance, with all their Sails standing, that so with their Hulls and Sails, they may both shadow, and serve as a Bullwark, or rampart to all the rest of the Fleet in their passing by : And this being

ing done, the rest of the Fleet are to birth themselves at as near a distance one unto another as conveniently they may, the better to relieve one another upon all occasions, ordering that such Ships as are of most defence and strength, either in respect of Ordnance or strength otherwise, be placed fairest and foremost in the ways of the Enemies Fleets approach, and there do attend the first assault, having besides some of the lightest Ships and best sailers continually abroad in the Offin, to advertise timely enough of the Enemies approach, and to make fit discoveries.

Adm. You here advise, touching the order and form of a Fleets Riding in a Rode or Harbour belonging to an Enemy, and an Enemy Fleet being expected from abroad (the which must needs be with the most of hazard) let me also hear from you what is to be done, when a Fleet riding in a Harbour, that is to friend, doth nevertheless expect to be assaulted by some over potent Enemy coming out of the Sea.

Capt.

*The best
Form and
Courses for
a Fleet to
defend it
self being
assaulted by
an Enemy
in a Har-
bour that is
to freind.*

Capt. In this case being by reason of the Enemies force to stand only upon your guard, the most provident and safe way is, to bring the Sterns of your Ships as near unto the Shore as possibly you may; yea, so near as that, if the Shore be Oazie Ground, they may sew at low Water mark; for hereby the assaulting Enemy, be he never so numerous, will be made fearful and wary in his approaches upon you for fear of running himself on Ground; and this the rather, if your Ships shall be anchored so close one unto another, as that (in calm Weather) by Plancks or Bridges, relief may pass from one Ship to another; and that some Ordnance be fittly placed upon the Shore to succour and favour them: But withal a main provision is to be made of Long-boats, Shallops, Barges, and the like, which are to be continually ready by the Ships-sides, for the prevention and towing aside, of all such Fire-ships and works of that nature, as the Enemy may offer to thrust upon them.

Adm.

Adm. You have said well, touching the point of defence in this Case, but what Courses can you propound for that of offence and assault, when it is to be made upon any number of Ships thus lodged and ordered.

Capt. Without doubt (my Lord) whensoever this shall be attempted, upon a resolved Enemy, thus fitted and favoured, it will cost blows and Blood.

The best Courses to assault an Enemies Fleet lying in a Road or Harbour that is a Friend.

And the only hopeful ways, that I can think of, or prescribe, must be either by some choice Ships of War, or by some of those Powder Ships, formerly mentioned.

Adm. What manner of Ships of War would you have if you were to attempt that way, and how to be ordered?

Capt. They should be of those sorts, as are most floaty, that so they may the nearer come up with the Enemy, but yet to be strong, and strongly provided with good and great Ordnance; a choice number of which Ships are to bring themselves in order, to an Anchor as near as they can flote at

What Ships of War are fittest to be employed in this assault.

at low Water mark, unto the Enemies Ships, and there to moore themselves in that manner, as that their Broad-sides may beat upon the Enemy, and are there to lye continually beating upon them, with as many of their great Guns, as may be brought to bear. By which Course, (being so near unto them, and having of them so fair a mark, by their being so closed together, as that few of their great shot will be given in vain) it is very probable, that either they shall sink them where they ride, or force them to cut their Cables, and so be ruined by driving upon the Shore. And in Case, that any of these assaulting Ships should receive any great shot from the Enemy, endangering her sinking, she is to retreat into the main body of the Fleet, and some other to be appointeth to make good her place.

And the better to secure them from the Enemies Shallops and Boats, which may desperately attempt to fire them or cut their Cables, they are to have all their Great Guns on their Weather sides, or on that which is farthest from
the

the Enemy, to be continually laden with murdering shot, to play upon their approaches, and their Boats to be well Manned and lye on the same side, that so they may be ready to receive them every way. Neither can these assailing Ships, thus lying at an Anchor be much endangered by the Enemies Cannon, if any should be lodged on the Shore, because that lying and being anchored so close up with the Enemies Ships they must needs serve them as a good defence and Rampart, by their Riding directly between their own Cannon on the Shore and them; so that they cannot annoy them without endammaging themselves.

Adm. This seemeth indeed a probable Course. But how would you order the bringing on of the Powder Ships if an attempt should be made by them?

Capt. These (in my opinion) are to be brought on in the dark of a night (the lying and Riding of the Enemies Ships from you, being set by the Compass in the day-time) and are

How Mine or Powder Ships may be employed in this assault.

D d

to

to be conducted (though with as much silence as may be) by good store of Boats to such a distance from the Enemies Fleet, as that their Men that Man them, may find time and place to retire themselves out of the reach and spoil of their firing, and that these Ships nevertheless (by having all their Sails abroad and their Rudders well wedged, and so setting in with a fore Wind, and if it may be with a Tide also) may of themselves, in all likelyhood fall in with the thickest of the Enemies Ships, to a thorough execution. And because it is to be expected, that upon their Mens leaving of them, this shall be no sooner perceived by the Enemy, but that some will adventure to board them, and by a speedy searching out for their Trains, seek to prevent their firing; it is a good way that many false Trains and Matches be lay'd and bestowed in sundry places of those Ships; the which the Enemy finding and removing, may be deluded by a supposed prevention, and so give over a more narrow search:

search : And for the true Traine, that all such Matches as are prepared for them be made fast to long Twines or Packthreds, the other ends of which Packthreds, are to be tied to the seers of two or three Pistols, whose Fire-locks are to be ready bent, and the Pistols being charged with Powder are so to be laid with their mouths, as that being fired by the snatching up of the Matches fastened to the Packthreds tied to their seers, they may by shooting into the main Bed of Powder, lay'd within the Vault or Chamber of the Mine, be sure to fire it, or at least, if these Matches shall not be found at all by the Enemies, that then they may of themselves in their due time, give fire to the true Trains ; that so either by the one means or the other, the wish'd effect of the blowing up of the Powder Ships, and the Enemy with them, may be accomplished.

Adm. Well Captain, I thank you for these your discourses and Informations, about our Marine affairs : we have been somewhat long in them,

*This subject
rarely
Written of.*

and to say truth the largeness and extent of our Theme might well require it; and besides it is a subject but rarely treated of by any Writer, though certainly as needful to be thoroughly known, as any one whatsoever of this Nature; and especially by us of this Island. For I verily believe that whensoever we lose the Sovereignty of our Seas (which God forbid) the next loss we shall feel, will be that of our Land.

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